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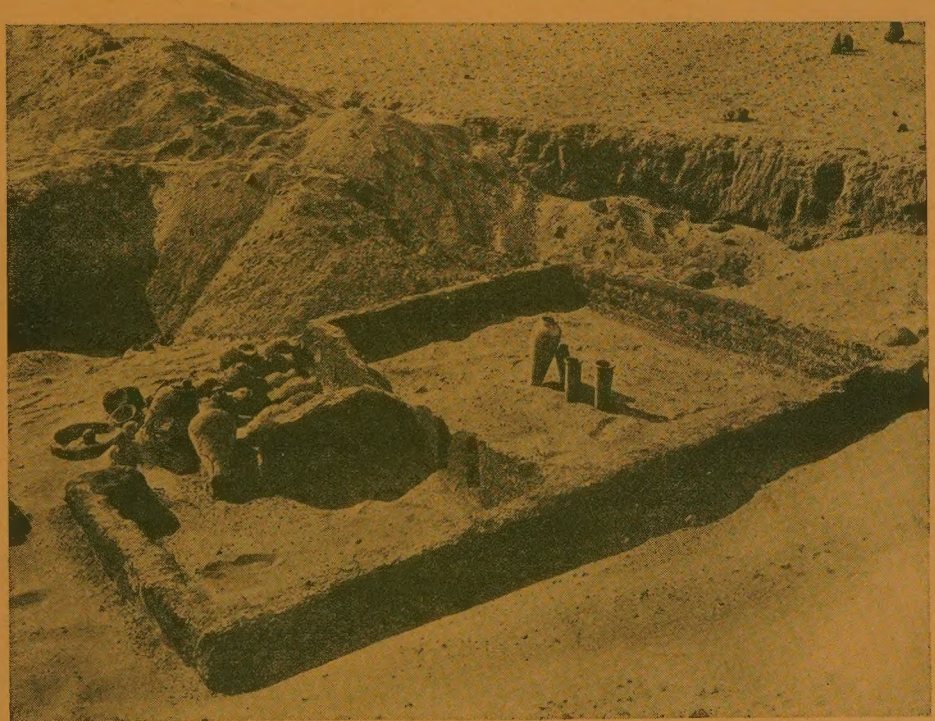
WHOLE SERIES
VOLUME XIII

JANUARY—FEBRUARY, 1914

SECOND SERIES
VOL. I, PART I.



Whole Series Vol. XIII

RECORDS OF THE PAST

Second Series Vol. I Part I

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JANUARY—FEBRUARY, 1914

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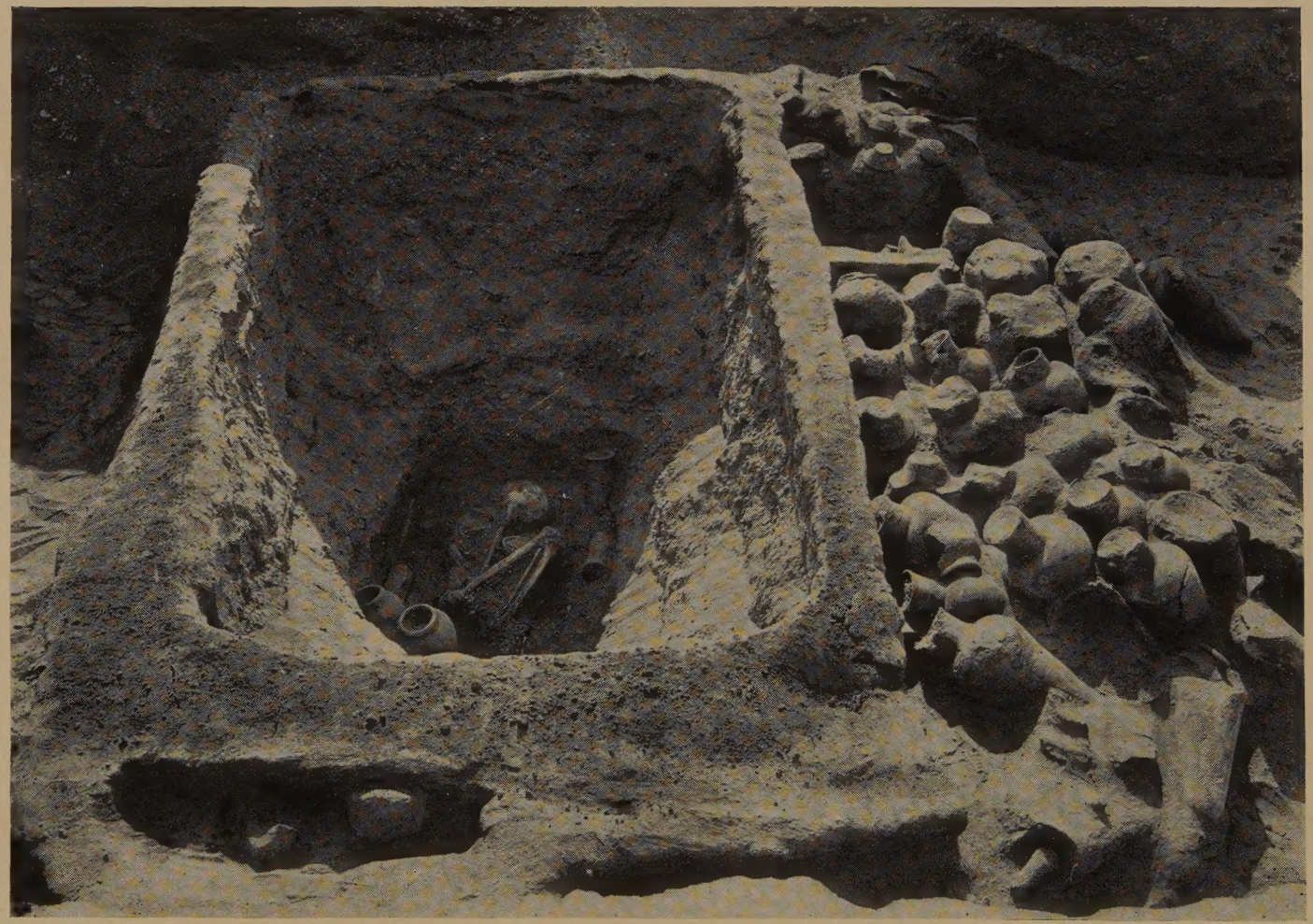

Fig. 3. An Undisturbed Tomb Uncovered at Tarkhan, Egypt

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TARKHAN

EVERY ONE who has gone up the Nile valley by train has passed close to a slight rise of desert about two hours from leaving Cairo. It looked quite blank and uninteresting two years ago; henceforward it will be one of the well known names in Egyptology. The nearest station is Kafr Ammar, and the little hamlet of Tarkhan gives a name to the cemetery. Here within a mile of ground lay the largest group of graves of one brief period, that has been found. Nearly the whole history of the place was within a soil cemetery; and 1500 graves have been opened, of which 1100 contain groups of objects needing publication, and over 600 skeletons remained which could be measured. The age of this cemetery was the most important in Egyptian history, just before and after the beginning of the I dynasty, when the dynastic people were overlapping the earlier inhabitants. The Egyptian Research Account was indeed fortunate to acquire such a site, entirely free from modern plundering, being quite unsuspected by the dealers. Hence the record is as complete as the ancient condition of the cemetery allows.

FIG. 2. GRAVE DATING BEFORE THE TIME OF MENA

The mode of keeping a record in such form as to be easily studied is to have a complete *corpus* of all forms of stone and pottery vases and then register for each grave the types found

No	SIZE OF GRAVE	FORM	BODY HEAD FACING	POTTERY DISH BOWL	STONE DISH	COFFIN L. B. D	BASKET AND MAT	BED	COPPER	BEADS	OBJECTS AND MATERIALS
4	42·81 36		S M		85f	77q				+	
58	45 87 60	s		126n 59p 73h				+			
59	30·60 40	s		27h 59qh 67j				+		+	GREEN GLAZE
61	35 60 30	s	WNW	11b 14md 27f 32 57d 59b 60b 65k	14b	72g					
63	32 55·40	s		12dr 33b 63p 68h		62g 78p	+				
64	40 70·	s	NW	27h 60b 65k 67j	23t			+			
82				67j	21t						
88		0		59k		78½	BASKET 34·20				
89		s		59p	12d 23v	62r 81t	28				SAUCERS WITH BURNT CHARCOAL
90	50 80·70	s	SW.	19q 54m 59h 76l 85f				+			

FIG. 1. SAMPLE OF DR. PETRIE'S RECORD SHOWING THE METHOD

in it (Fig. 1). This is the only method by which details of thousands of specimens can be handled and compared afterwards. The size of the grave is taken on the north and east sides and the depth of it, all in inches. The form is stated whether square, long

or oval. The direction of the body and of the face is given, all bodies being contracted. It is to be hoped that other cemeteries may be tabulated thus instead of giving long verbal descriptions which no one can be expected to follow.

The superstructures of the graves were preserved perfectly in some cases. Over the commoner graves was a mound which had been plastered with gypsum and sand forming a flat dome.

Fig. 4. Brick Tomb Dating to the Middle of the I Dynasty

The larger graves had regular *mastabas;* as these date to before Mena we see how early this type was arising. The grave was covered by a flat pile of sand retained by a dwarf wall about 18 in. high (Fig. 2). On the side of approach from the pathways a model court was built against this; it was only about 2 ft. square with a little entrance and sometimes only one brick high. It was here the offerings were presented, opposite to two slit

Fig. 5. Coffin Containing the Bones of a Pet Duck

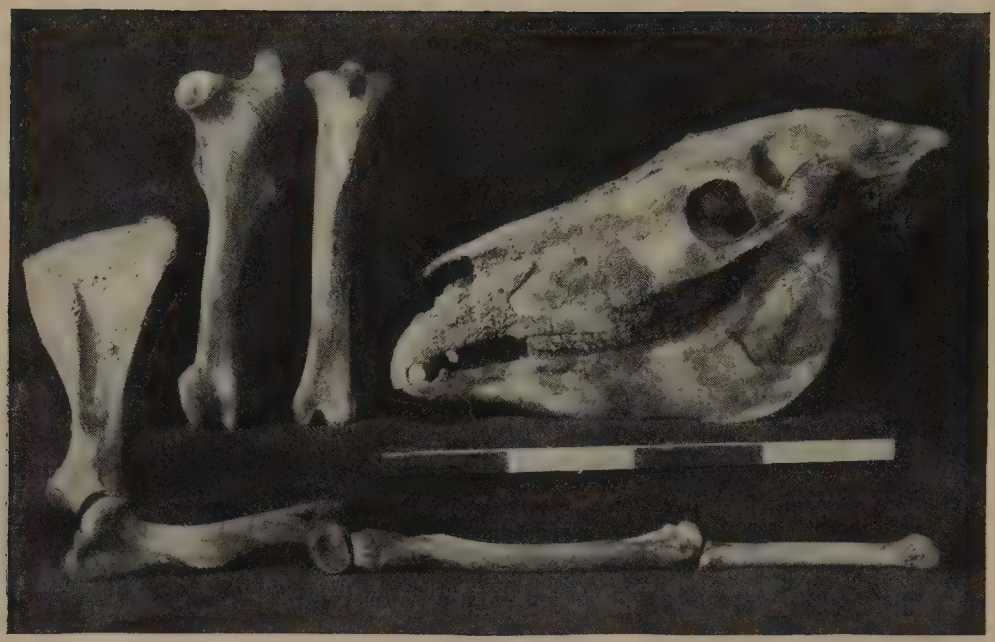
openings left in the brickwork of the tomb. Whenever a vase of drink offering was brought the jar was left by the tomb and so large stacks of pottery were accumulated which were soon sanded over and lay untouched and unaltered ever since Egypt had a history.

On opening one such tomb which was quite undisturbed the skeleton was found in the usual contracted attitude, quite per-

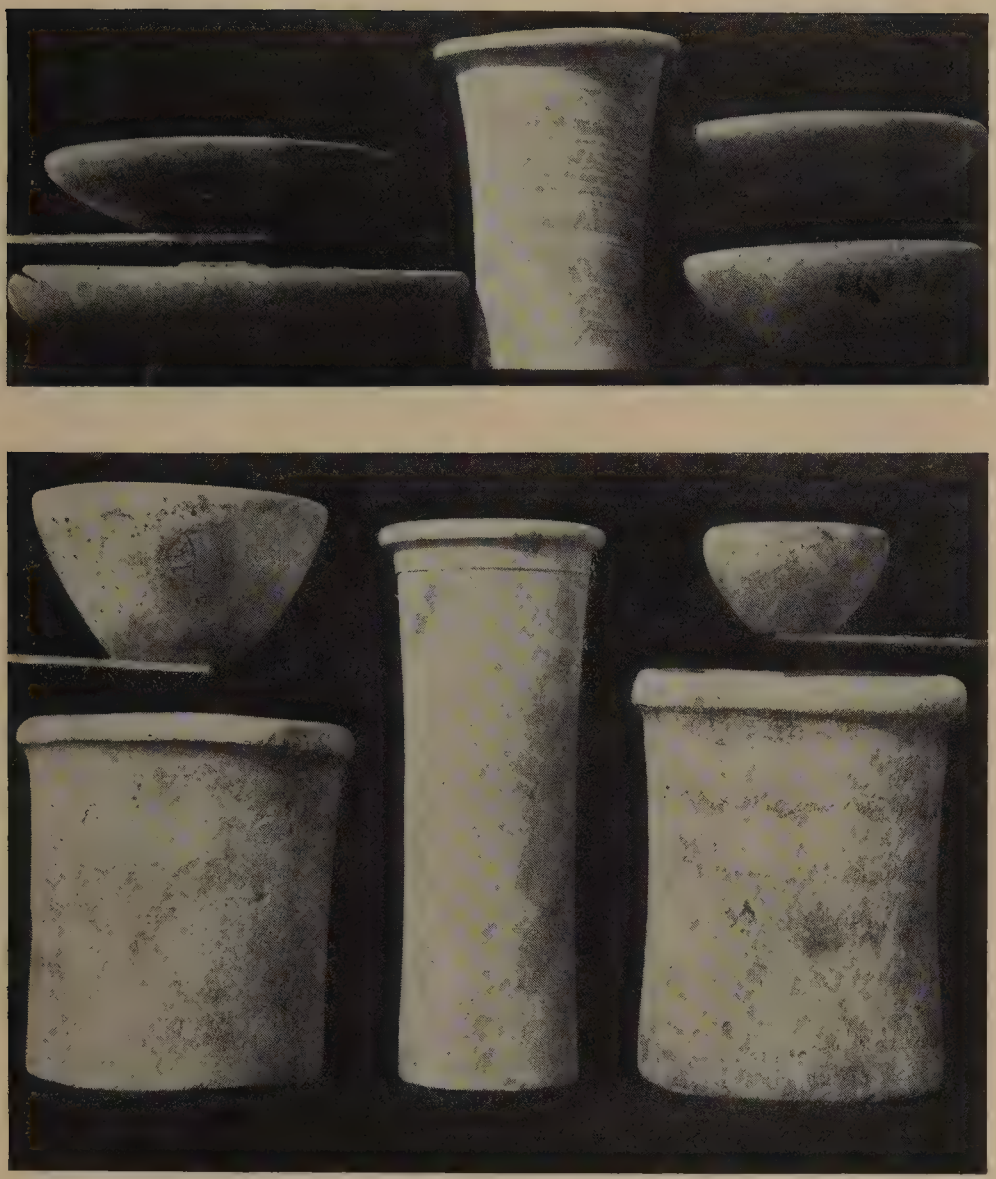
Fig. 6. Tomb Containing the Skeletons of Three Donkeys

fect, with an alabaster bowl between the knees and face and a slate palette on the top of it (Fig. 3).

Then great tombs of nobles were found, over 100 ft. long, surrounded with a thick pannelled brick wall. These larger *mastabas* belong to the middle of the I dynasty. They had been completely cleared out and one was reused about the XII dynasty. However there remained from one tomb four splendid



FIGS. 7 AND 8. THE ONLY DONKEY SKELETONS KNOWN FROM EARLY EGYPT



FIGS. 9 AND 10. A SET OF ALABASTER AND SLATE FROM AN UNDISTURBED GRAVE

alabaster jars and an immense amount of linen cloth. Around these *mastabas* were some burials of the household with the tombs in perfect condition. Low platforms of brick, plastered and whitewashed, covered the graves each with two little doorways modelled on it for the soul to go in and out. On opening these tombs the coffins were found with perfect skeletons and jars of

FIG. 11. AN ALABASTER TABLE

offerings. One such tomb and coffin only contained the bones a duck (Fig. 5), doubtless a pet animal. Another long trench tomb (Fig. 6) contained the skeletons of three donkeys, which had been beheaded, the heads being placed over the bodies. These are the only donkey skeletons known from Egypt (Figs. 7, 8).

A very fine set of alabaster and slate was found in an undisturbed grave (1973) and is now in the Boston museum (Figs. 9, 10). A curious alabaster table with four legs is of a type which is quite new to us (Fig. 11). Vases of green glazed pottery were evidently usual in the I dynasty: this agrees with the free use of large glazed tiles for walls as found at Abydos (Fig. 12). In a large proportion of the graves bead necklaces and amulets were found, mostly of carnelian and green glazed pottery, sometimes of garnet and amethyst. Considering how most of the graves had been rifled soon after the burial, it seems probable that all women and perhaps a third of the men were buried with neck-

laces which must have each represented a large amount of skilled labor and value. Probably most of the graves contained vases of alabaster in view of the large number remaining. Altogether this population at the beginning of the history of Egypt was apparently well-to-do and posessed better things than are made in Egypt today. So far from being an age of dim barbarism

Fig. 12. Vases of Glazed Pottery

the people were well off, with much taste, and owning ornaments that are still beautiful to the tastes of men 7000 years later. From the Palermo stone we also know that they had precise historical reckoning, and a register of the annual Nile flood; while from the historical mace-head we see that a complete numerical system was used with special signs up to millions.

Some interesting impressions of seals give the name of king Nar-mer, who is probably known also as Mena (Fig. 13); the seal of the Fayum province (Fig. 14) shows crocodiles in the lake, the waves of which are represented by spirals. The sacred crocodile is on a stand, with two ostrich feathers on his back, the middle object is the shrine of the Fayum with the bull's head above it, which was copied in different form throughout later times.

The scarab beetle has often been found placed in jars in early graves, but several stone beetles occurred in the graves of Tarkhan as amulets, one in particular (Fig. 15) is made of the true scarabeus shape, hollowed out, with the lower end serving as a plug to close it, held in place by a string passing through it and

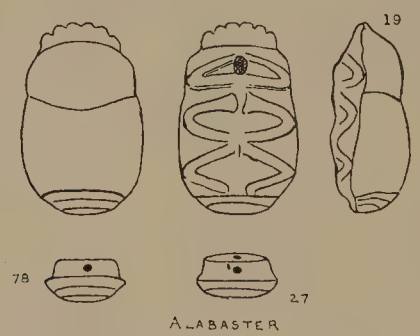


FIG. 15. A SCARAB BEETLE FROM A BURIAL JAR AT TARKHAN

then up through the beetle. This hollow case was probably a reliquary or amulet case and it conclusively proves how the scarabeus was honored in the I dynasty. Some flint knives (Fig. 16) are of exactly the same form as at Abydos which were contempory with the ages here found for these. Both in flint working, as in vases of stone and pottery, there is no perceptable lag of one part of Egypt after the other. Exactly the same forms are found at the same reigns in Upper Egypt and near Cairo. There is no localization of the usages, but trade unified the types found throughout the country.

A new light has been thrown on the civilization by finding the remains of the wooden architecture. From a study of the stone work it had appeared that it was copied (as Greek temples were)

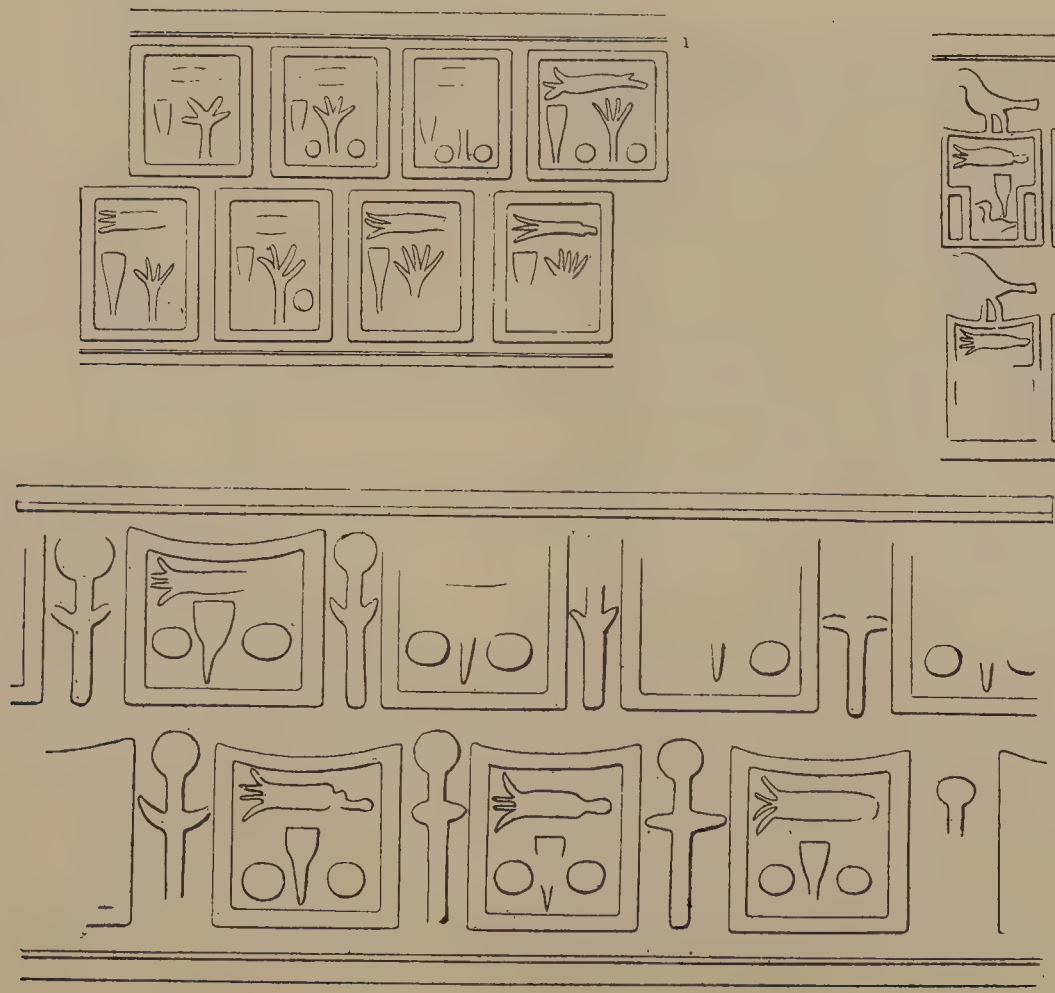


Fig. 13. Seal Impression

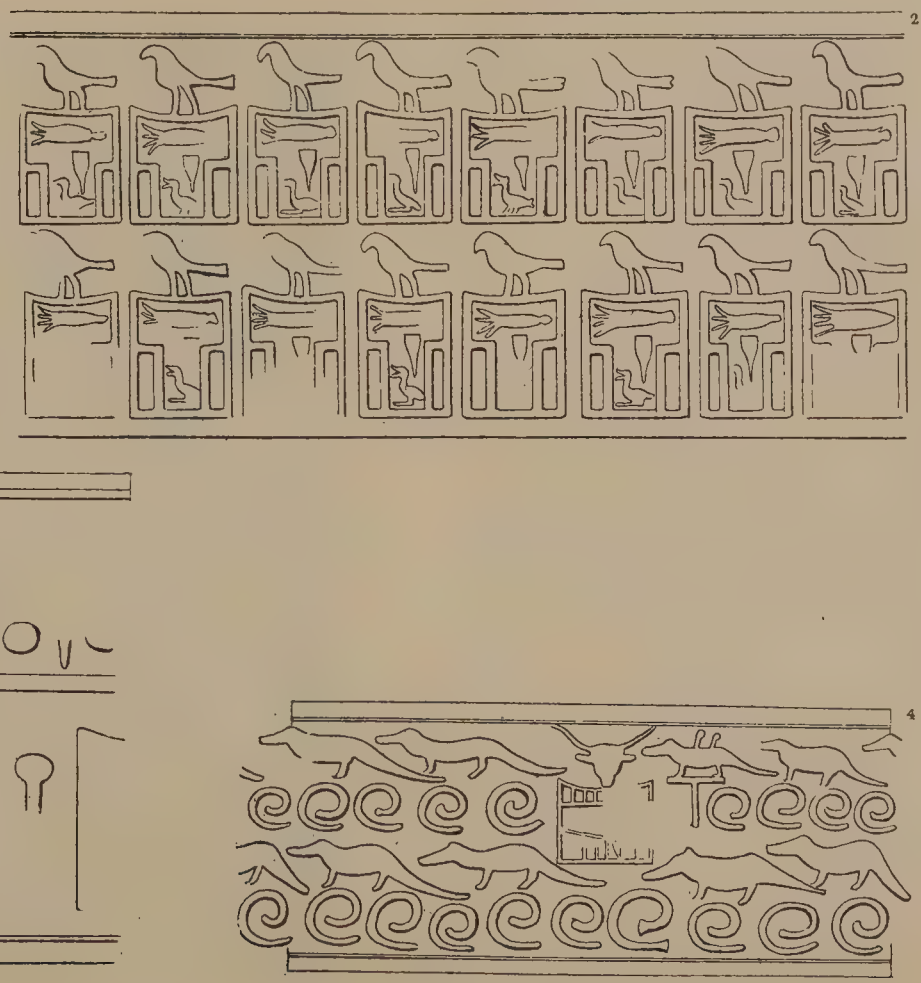


Fig. 14. Seal of the Fayum Province

from a previous wooden building. At Tarkhan for the first time the actual planks of the wooden houses were found exactly adapted to the type of building shown in the stone copies (Fig.17). The planks and their sections are shown in Figure 17 with their lashing holes for the rope or leather thongs which bound them together. Below are two plans showing how they were lapped and lashed together forming the pannelled pattern which is so well known in stone copies and in brick work. These timber

Fig. 16. Flint Knives from Tarkhan

houses were required, like the reed huts of the present day, to be set up on the desert during the inundation, and in the green plain during the season of cultivation.

The historic light on the dynastic invasion, which is given by the skeleton measurements, is one of the main results of the work. On drawing curves of distribution of the variations of length of the bones it is found that the female skeletons give a single curve about one center, showing a homogeneous population.

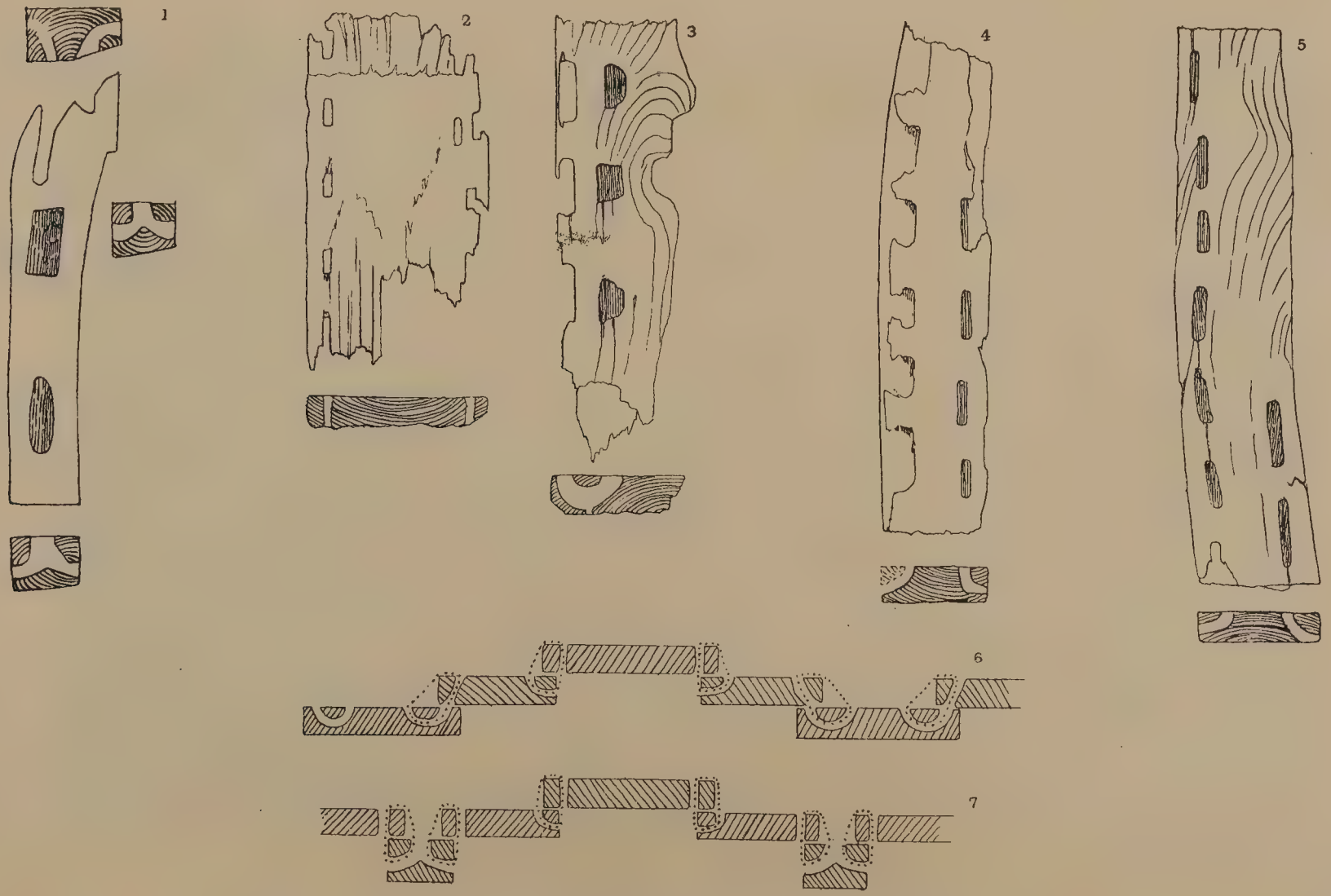


Fig. 17. House Timbers, Bed Frame, Arrows and Armlet from Tarkhan

FIG. 18. JEWELRY FROM A CEMETERY SOUTH OF TARKHAN

The male skeletons show, in each bone, a double curve. This can be distinguished into a majority agreeing with the female curve and a small minority of about a tenth of the whole, which is far less variable and therefore of a more closely connected clan than the great majority. It is obvious that we must regard this clan as being the invading people of that age who were all men and did not bring women with them. This clan was much shorter than the bulk of the population. On looking back into the earlier prehistoric age we see that a continuous shortening had been going on for centuries before the I dynasty, culminating in a sudden step in the invaders stature. This points to a gradual infiltration having taken place, like the migration of Syrians before the Hyksos conquest, or the migrations of Arabs before the Islamic conquest. Probably in all these cases climatic changes had been gradually forcing on tribal movements. Altogether there is a drop of 8 per cent from early prehistoric down to the dynastic people and then an increase of 6 per cent of stature on reaching the XII dynasty. Approximately the living statures of men were 71 in. in the prehistoric, 66 in. in the dynastic people and up to 70 in. again in the Middle Kingdom.

The great cemetery of Tarkhan probably belonged to the temporary capital of Egypt before the founding of Memphis by Mena. The invaders must have had headquarters not far from their new conquests, as they moved south and the great extent of this place, beginning a generation or two before Mena and dying away as Memphis grew in importance agrees to its having

FIG. 19. CANOPIC JARS FROM TOMB SOUTH OF TARKHAN

been superseded by the new center. It was an ideal site for clearing up the dynastic beginnings and it has given us a far clearer view than anything that we have known before.

Besides the work on the cemetery of Tarkhan other excavations have been carried on by the Egyptian Research Account. A few miles south of Tarkhan a cemetery of the XII and XVIII dynasties has been fully examined. The main discovery there was a beautiful set of jewelry of a noble, made in the same style as the celebrated jewelry found at Dashur (Fig. 18). The square pectoral ornament is made on a pierced gold plate fitted with narrow ribs of gold which hold in place the pieces of turquois, lazuli and carnelian. The design appears to be the sekhem scepter in the middle, which was carried by the nobles; the royal bird on each side and the two sacred eyes with the disc of the sun between them at the top. With this was the gold

FIG. 20. CANOPIC JARS FROM TOMBS SOUTH OF TARKHAN

shell bearing the name of Senusert III in wire work upon it (3450 B.C.); and a figure of a flying scarab with two lotus flowers below, which has doubtless been part of the name of Senusert II (3470 B.C.). Unfortunately the front of the scarab and the disc of the sun which it held had been anciently broken away.

Some very fine canopic jars (Figs. 19, 20) were found in another tomb; the heads are equal to the statuary of the time. A large limestone table is a very rare find (Fig. 21) if not unique, although the form is very familiar in the sculptured scenes of offerings. It is now in the Metropolitan Museum, New York.

FIG. 21. LARGE LIMESTONE TABLE FROM EXCAVATIONS SOUTH OF TARKHAN

Of the same age is a black granite statuette, with a wig which has been added in black paste in order to keep up with the changes of fashion (Fig. 22).

Of the XVIII dynasty was a long gold necklace with a gold badge of a scribe named Bera under Thothmes III. Some weapons and tools of this age were found (Fig. 23). The sword is of the shape used by the Shardana troops of Rameses II. A spearhead and knife adjoin it and at the right is a large hoe of bronze.

At Memphis a couple of acres or so of the great site of the temple of Ptah is being regularly cleared over each year. Sculptures are often brought to light thus from under many feet of water. The work is peculiarly difficult and expensive, but the hopes of finding some historical monument continually encourages the excavators. Among the latest results we may show the oldest figure of a god known from Memphis, a bust of the

Fig. 23. Weapons and Tools of XVIII Dynasty

Fig. 24. Bust of the Bull-God Apis. The Oldest Figure of a God Known from Memphis

FIG. 26 SPHINX OF RED GRANITE FROM MEMPHIS

bull-god Apis (Fig. 24), which is of the XII dynasty. Such early figures of gods were unknown until I found several in the ruins of the labyrinth of Amenemhet III. This Apis bust is of exactly the same stone and workmanship and therefore of about the same age. It is now in the Philadelphia University Museum.

Another interesting sculpture is a slab with three hawk-headed figures, probably the spirits of Buto (Fig. 25) and an inscription about the shrines of the sacred serpents, which are figured on flat-roofed houses in the south but domed-topped in the north, like the houses in the south and north of Egypt at present.

Of the celebrated Rameses II a fine sphinx of red granite (Fig. 26) was found which is now safe in the Philadelphia Museum. It weighs 11 tons; but another of alabaster weighing 50

Fig. 22. Black Granite Statuette with Wig in Black Paste

Fig. 25. Slab from Memphis with Hawk-Headed Figures

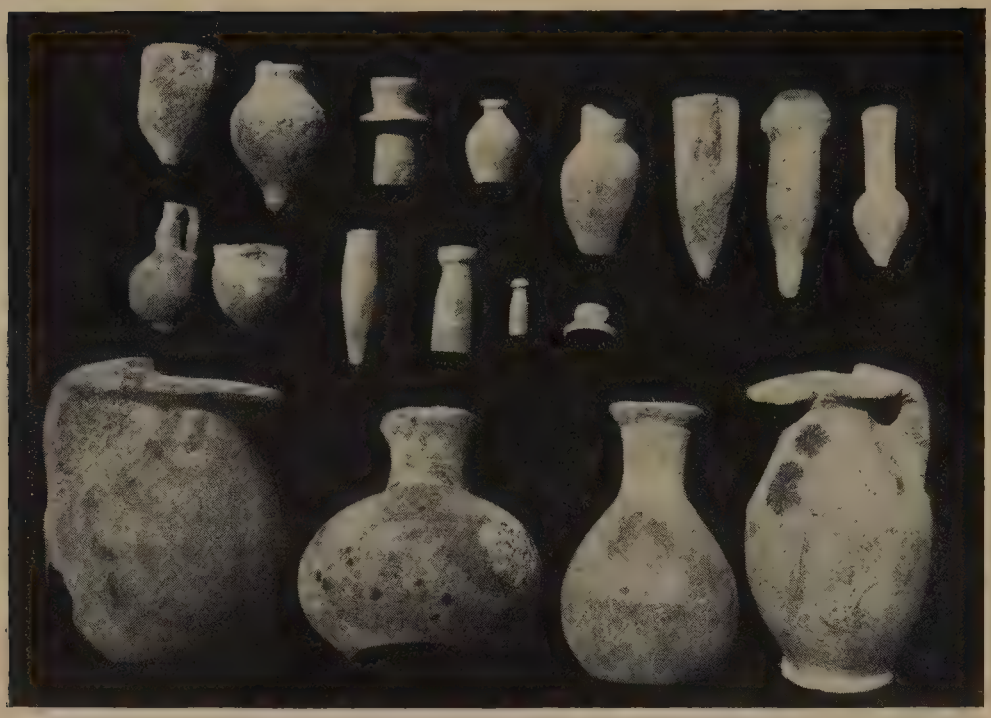


FIG. 27. ALABASTER VASES IN VARIOUS STAGES OF MANUFACTURE

tons has been erected at Memphis and will be one of the main attractions of the site.

Of Roman times an interesting series was found showing all the stages of making alabaster vases (Fig. 27). The same methods we know to date also from early times. The rough blocks were brought from the quarry, picked into shape and finally ground to nearly the final form as in the row at the bottom of our illustration. Then they were bored out with a tube drill and the hole ground around until the vase was hollowed. When the inside was completed the outside was then finished off so as to leave a uniform thickness.

A figure-makers work shop was found with rows of pottery figures, many of them retaining the coloring (Fig. 28). Some were rare or new types, such as the square panel with Isis subduing the Apis bull in place of Horus, the cat and cock, and the hyæna. An important standard of measure, ruled with great accuracy on a slab of stone, shows that the foot of the northern

FIG. 28. POTTERY FIGURES FROM A FIGURE-MAKERS SHOP

nations (13.3 inches) which had penetrated to Egypt in the XII and XVIII dynasties, was in Roman times so much used that a definite standard was required to test copies.

The work at Memphis will appear with the Riqqeh jewelry, etc., in the volume given to all subscribers of $5.00.

W. M. FLINDERS PETRIE.

London, England.

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DEATH OF DR. ALFRED RUSSELL WALLACE[1]

WE REGRET to record that the veteran traveller and naturalist, Dr. A. R. Wallace, O.M., died at 9.25 Friday morning, November 7, 1913 at his residence in the Dorset village of Broadstone, 7 miles from Bournemouth. He was in his 91st year.

Alfred Russel Wallace was born on January 8, 1823, at Usk, in Monmouthshire, and was educated at Hertford Grammer School. At an early age he began to assist in the business of an elder brother who was a land surveyor and architect. This circumstance had an important effect on the course of his life. In the first place, his business engagements took him to various parts of England and Wales; and the observations he made in the course of his journeys about the country persuaded him of the evils of the landlord system and engendered in him those opinions in favour of the state ownership of land which were expressed many years later in his book on *Land Nationalization: Its Necessity and Aims*, published in 1882, and reiterated in his *Social Environment and Moral Progress*, published only this autumn. In the second place, this elder brother was a man of advanced liberal and philosophical views; and through constant association with him Wallace soon lost the capacity of being affected in his judgments either by "clerical influence or religious prejudice."

He thus became a "confirmed philosophical sceptic," a thorough materialist, in whose mind there was no place for any conception of spiritual existence or of any other agencies in the universe than matter and force. But his curiosity being aroused by some inexplicable, though slight, phenomena that occurred in a friend's house, he began to make investigations, and thus came upon facts which he conceived to be "removed from anything that modern science taught or philosophy speculated upon." In this way he gradually arrived at a belief, expressed in *Miracles and Modern Spiritualism* (1881), in the existence of præter-

[1] Reprinted from London *Times*.

human intelligences of various grades, able to act on matter and to influence the minds of men, and was led to question the validity of the *a priori* arguments against the occurrence of miracles.

TRAVELS IN THE TROPICS

About 1844, while he was a master at the Collegiate School at Leicester, he became acquainted with the naturalist H. W. Bates, and the result of the acquaintance was that the two soon determined to make a natural history expedition to South America. In 1852 Wallace returned to England; but on the voyage he suffered a severe misfortune, for, the ship taking fire, his notes and collections were lost, with the exception of some he had sent on before hand, and he himself was ten days in an open boat. In 1853 he published an account of his expedition, *Travels on the Amazon and Rio Negro*, and also a small book on *Palm Trees of the Amazon*.

In the following year, having disposed of such specimens as had been saved, he started off for the Malay Archipelago. The main object of this journey also was to obtain specimens both for his own collections and for those of museums and amateurs. He was away from England eight years, and during that time travelled 14,000 miles within the Archipelago, visiting, among other countries, Sumatra, Java, Borneo, Celebes, the Moluccas, Timor, and New Guinea.

WALLACE AND DARWIN

Wallace was first introduced to Darwin to whom *The Malay Archipelago* is dedicated, in 1854, in the Insect Room of the British Museum; but nothing of any great moment seems to have been said by either on that occasion. A few years later, however, Wallace was destined to cause considerable perturbation in the mind of the man who was to write the *Origin of Species*. So far back as 1842 Darwin had written out an outline of the law of natural selection which in an enlarged form had been read by Sir Charles Lyell and Sir Joseph Hooker in 1844, though otherwise he does not appear to have spoken about it to anybody.

At any rate, when Wallace, who had published in 1855 in the *Annals of Natural History* a paper on *The Law which has Regulated the Introduction of New Species*, wrote to Darwin on the subject the latter gave no hint of having arrived at any conclusion regarding the mode in which such a law operates; and in 1857 he even wrote to Wallace, "My work will not fix or settle anything." Yet in the beginning of 1856, at Lyell's instance, he had begun to write out his views on the "tendency in organic beings descended from the same stock to diverge in character as they become modified,"and to expound his belief that the "modified offspring of all dominant and increasing forms tend to become adapted to many and highly diversified places in the economy of nature." He was therefore justifiably astonished, on June 18, 1858, to receive from Wallace, then in the Moluccas, an essay *On the Tendency of Varieties to Depart Indefinitely from the Original Type*, in which his own theory was clearly expressed. The letter which Darwin sent to Lyell on the same day is worth quoting again:

> He [Wallace] has sent me the enclosed and asked me to forward it to you. It seems to me well worth reading. Your words have come true with a vengeance—that I should be forestalled. You said this when I explained to you very briefly my view of natural selection depending on the struggle for existence. I never saw a more striking coincidence; if Wallace had my MS. sketch written out in 1842 he could not have made a better short abstract. Even now his terms stand as heads of my chapters.

It was arranged that Lyell and Hooker should "communicate" to the Linnean Society a joint paper by Messrs. C. Darwin and A. Wallace, consisting of Wallace's essay and extracts from Darwin's sketch of 1844, together with part of a letter he had written to the American botanist, Asa Gray, in September, 1857. This was done on July 1, 1858.

One effect of this incident was that Darwin and Wallace became firm friends and frequent correspondents, although not actually seeing much of each other; and at Darwin's funeral in Westminster Abbey in 1882 Wallace was one of the pall-bearers.

His writings did much to promote the progress and understanding of Darwinian doctrine. But he did not see eye to eye with Darwin in every respect. He held, for instance, that other forces besides natural selection have moulded the development of the human race, and adopted views of a decidedly teleological character. In the *World of Life*, published in 1910—a wonderful book to be written by a man in his 88th year—he gave clear expression to these views, arguing that the complexity of the structure of living things necessarily implies: (1) a creative power; (2) a directive mind; and (3) an ultimate purpose, which he conceived to be the development of man—"the one crowning product of the whole cosmic process of development."

In 1881 Wallace was granted a Civil List pension of £ 200 a year. He published an autobiography, *My Life*, in 1905, reissuing it in a condensed form in 1908. His most recent publications were *Social Environment and Moral Progress* and *The Revolt of Democracy*, both of which appeared this year, the latter only a week or two ago.

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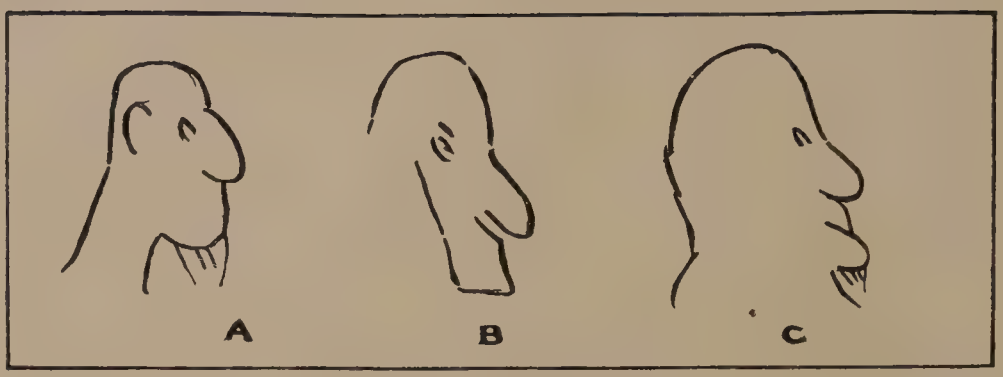
POMPEII.—Among the interesting discoveries made at Pompeii during the past year were a number of remarkably well preserved houses and shops along Strada dell' Abbondanza. Many of the houses found here were provided with a second story projecting over the street and open in front. Numerous drinking dishes for birds were found, and in one place such a large number of fragments of such dishes were discovered as to suggest that a large aviary had been maintained at that place. In the thermopolium the counter with its pots for warm liquids was found practically intact. Not only were receptacles for wines and other drinks, pitchers, drinking cups and lamps found on the counter, but even small change, indicating the haste with which the shop was abandoned at the time of the catastrophe. The change consisted of 5 silver pieces and 38 bronze coins.



PREHISTORIC DRAWINGS

A In the Grotte des Fées, in the Gironde; *B* In the Font-de-Gaume Cave, Dordogne; *C* The drawing just discovered in the Colombière Shelter. (Courtesy of *The Illustrated London News*)

MORE PALEOLITHIC ART

BY DEGREES paleolithic stations are being re-discovered. The large rock shelter of La Colombière, valley of the Ain, some 30 miles southwest of Geneva, is an example. Known since 1875 it had been only superficially explored. The important discoveries of Dr. Lucien Mayet of the University of Lyons and M. Jean Pissot of Poncin, date from October, 1912; and were first announced through the Paris Academy of Sciences on October 20th. The trench they dug revealed in section; (1) neolithic at the top; (2) a Magdalenian horizon, the upper section of which with the neolithic had been disturbed by earlier investigators; (3) a layer of fine sand with débris from the overhanging rock, one meter thick, in which no relics were found, representing a long period of non-habitation by man; (4) Aurignacian layer with fossil remains of the mammoth, woolly rhinoceros, reindeer, and horse. Here also was a workshop left by Aurignacian man, flint tools and rare engravings characteristic of the epoch.

The principal find is a large fragment of mammoth bone on which are engraved human figures; a head and upper part of the body including an out-stretched arm and hand; likewise a figure with head and feet missing, probably a female. Both these en-

DRAWING RECENTLY DISCOVERED IN THE COLOMBIÈRE SHELTER

This human face is engraved on part of the shoulder-blade or pelvis of a mammoth by a man of the Aurignatian period. Possibly it is an attempt at caricature rather than a realistic portrait. The fragment of bone is about 7 in. high. (Courtesy of *The Illustrated London News*)

gravings are in profile, the view easiest to master by a primitive artist working in outline. Fairly good examples of the human form in the round and in relief dating back to the Aurignacian epoch are already known. Engraved figures are rare and so far as the head is concerned are little more than caricatures. The example from La Colombière is no exception in this respect and curiously enough resembles certain engraved human heads pre-

HORSE ENGRAVED ON A PEBBLE BY AN AURIGNATIAN ARTIST

(Courtesy of *The Illustrated London News*)

MAP OF THE PART OF THE VALLEY OF THE AIN IN WHICH THE COLOMBIÈRE SHELTER IS SITUATED

(Courtesy of *The Illustrated London News*)

viously reported, one from the cavern of Font-de-Gaume (Dordogne), one from the Grotte des Fées (Gironde), and others from Les Combarelles (Dordogne) and Marsoulas (Haute-Garonne). In the Aurignacian layer were also found pebbles with engraved figures of the bison, *Felis*, horse, and wild sheep. When it is recalled that four-fifths of all Quaternary engravings are animal figures, the bison and horse predominating, the importance of these two human figures from La Colombière at once becomes evident.

George Grant MacCurdy.

Yale University.

THE AQUEDUCTS OF ANCIENT ROME.—Mr. T. Ashby at the British Association for the Advancement of Science, last September (1913), presented a paper on the ancient aqueducts of Rome. There were three sources for the water supply, he says, the principal one coming from the upper valley of the Anio. "The second of the aqueducts, constructed in 272–269 B.C., drew its water and its name from the river itself; while the third, the Aqua Marcia, built in 144–140 B.C., made use of some very considerable springs on the right bank of the river. During the following century use was made of various springs in the more immediate neighborhood of the city; but Caligula's engineers returned to the Anio valley, and the Aqua Claudia and Anio Novus, both completed in A.D. 52, drew their water respectively from the springs which the Marcia had already tapped and from the river. The remains of these four aqueducts are very considerable and comparatively little known, but by careful research on the spot it has been possible to determine their course with fair accuracy from the springs to the city, even in the portion where they ran underground through the lower slopes of the Alban Hills."

Market Cross, Carlisle

CARLISLE

THE CITY of Carlisle, that "renowned border city" in extreme north-western England, is of great antiquity. Legend tells us of its foundation before the Roman period, while modern historians call attention to the fact that, unique among English cities, it has preserved its ancient British name: Caer (a place of strength) and the terminal Liul or Luel (the name of a British prince). "Of British occupation scarcely a vestige remains, except what the earth now and again yields from its long slumber. Yet as a sure proof of the antiquity of man in this district, there is that immense circle of unhewn stone, and a smaller circle near by, which stand in solemn mystery guarding the moor, as it were, above the river Eden, a few miles below the old city—a silent, yet strange testimony of a religion and people the knowledge of whom has become lost by the lapse of ages." Luguballium, or Luguvallium, as Carlisle was known in Roman times, became, after their departure in the V century, the battle-

ground of contending Pict, Caledonian, Angle, and Celt. Of these the two former "had, for three centuries, been held at bay by the strength of the Roman arm; but they now swept, wave after wave, across the barrier, shrieking forth, on the dreary night wind, their wild unearthly battle-cry, immediately the Roman legions retired."

Carlisle is well-known also as the city which terminated the great Roman Wall, which, generally speaking, extended from Newcastle to Carlisle. Professor Freeman writes in regard to Carlisle's connection with this great fortification, one of the most astounding feats of engineering which civilization ever produced, that the "Roman wall, the greater of the Roman walls, the only Roman wall in the sense which the word conveys in modern usage, the mighty bulwark of Hadrian, of Severus, and of Stilicho, may be fairly said to take Lugubalia as one of its starting-points. Not itself placed immediately on the line of the wall, the fortress looks out, as one of its chief points of view, on the station of Stanwix, the near neighborhood of which may have caused Lugubalia itself to have been really of less military importance in the days of Roman occupation than in either earlier or later times. . . . . We may be sure that such a site was marked off as a place of defence even in the days when the art of defence was rudest. Here, as in so many other cases, the Roman did but seize on and improve on the works of the older inhabitants of the land. But we may be equally sure that it was at Roman bidding that the primitive stronghold became the acropolis of a city, a city where the arts and luxury of southern Europe were for the first time planted on this furthest border of Roman abiding power. From his own world the Roman had gone forth to bring the other world of Britain under his dominion. But, as he looked forth from the acropolis of this his most northern city, he must indeed have felt that there was yet another world beyond, a world within which the power of the Caesars could spread itself only now and then, in moments of special, and at last of dying, energy."

After the final departure of the Romans from Britain in their

futile attempt to ward off the barbarian invaders from the Eternal City, the history of Carlisle, as of Britain itself, is veiled for a time from us. "We enter that unrecorded age whose silence is more eloquent than any record, that age of darkness whose gloom gives us a clearer teaching than we can often gain from the fullest light of contemporary history." We find legends which tell us of King Arthur making Carlisle his capital, while we know that the ancient city was pillaged in the VI century, rebuilt under King Egfrid about 650, and then it was to be so utterly destroyed by the Danes in the IX century that it lay in utter desolation for two hundred years. Carlisle however, under the Normans, and especially in the reign of William Rufus, was finally reconstructed, and a strong castle built on the site of the Roman one.

But the venerable city, lying upon "the Border," "the Debatable Ground," must, centuries later, begin on another era, and also a stirring one. It must be the scene of constant border warfare. "Few cities in Great Britain have been the theater of such startling adventures. It has frequently changed masters, and often been the abode of kings and queens. Momentous gatherings, stirring deeds of chivalry, mediaeval glory and princely festivity! Often in the darkness of the night has the city been disturbed by the slogan's terrible yell, and the startling shriek of the pibroch sounding like a death-knell on the night air, when the city has been invested by kilted chieftains, and fierce, unkempt intruders from the wilds of Galloway and the far north, led by men the most famed in history—a Wallace, a Bruce, Randolph, Douglas, or Scott." Along its ancient streets once passed "Bonnie Prince Charlie" riding into the town "on a white charger, with a hundred Highland pipers playing a triumphal march in front," while the castle and cathedral are full of memories of Edward I and other English kings, of Mary Queen of Scots and John Knox, and, last but not least, of Sir Walter Scott.

The Cathedral of Carlisle has, like the city itself, seen strange vicissitudes. In consequence, it is a conglomeration of various styles of architecture. As the result of a terrible fire here in the XIII century, only a little of the original Norman nave remains,

Carlisle Castle

the other parts being Decorated Gothic. The great east window is especially fine. "The Cathedral has been greatly mutilated in bygone centuries; the cloisters and chapter-house have been demolished, and only a fragment of the nave remains. The edifice, as it now stands, is the plainest of our English cathedrals. The choir, however, is very rich in carved work, and the east window is the glory of the whole building."

The castle is built of red sandstone, and occupies a prominent position in the north-west part of the city. It has outer and inner wards, a deep vallum, and a double gateway defended by a portcullis. The keep is a square building, of great strength. Here in the steps leading up to its parapet, is the deep well of Roman construction, over which as the Venerable Bede tells us, St. Cuthbert marvelled, when visiting the city. In the dungeons are some grim instruments of torture, which could, doubtless, tell some terrible tales.

"Few cities, we should imagine, so ancient and historic as Carlisle have undergone so rapid a transformation. Yet, for those who seek, there are curious old houses, thick walls, and an-

South Aisle, Carlisle Cathedral

tique wondows, grim with memory and tradition; narrow wynds, alleys, and by-places; mazy courts and tower-like houses, dating from the Tudor period; and on Fair-days she is still Merrie Carlisle; then she is a perfect Tower of Babel, and it would be easy to imagine that all the riff-raff that ever dwelt on the borders had congregated together for some great carnival on these occasions.

FONT, CARLISLE CATHEDRAL

The old gates, English, Scotch, and Irish, which were closed at sunset, have disappeared, and the city walls have been cast down." But in spite of all the changes that time and the fierce struggles of mankind have wrought, Carlisle still stands, a grand old city, the home of poetry and wild romance. "The place of Carlisle in English history" is indeed firmly established. She remains

to-day one of the most remarkable of the cities of England, a bulwark of the north country, with records picturesque and warlike almost beyond belief.

ADELAIDE CURTISS.

Fishkill-on-Hudson, N.Y.

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THE ORIGIN OF THE DOLMEN[1]

SINCE Reisner explained (1908) the mode of evolution of the *mastaba* type of superstructure, which in its fully-developed form as a stone construction is so characteristic a feature of the Egyptian tomb of the Pyramid Age, Mace (1909),[2] Quibell (1912),[3] Junker (1912),[4] and Flinders Petrie (1913),[5] have supplied the data which complete and corroborate the story. In the light of this recently-acquired knowledge of the gradual transformation of the Egyptian grave (a process that occupied the 5 or 6 centuries from 3400 B.C. onward) to meet conditions peculiar to Egypt, and to overcome difficulties incidental to the practice of Egyptian beliefs, it is altogether inconceivable that the more or less crude, though none the less obvious imitations of the essential parts of the fully-developed *mastaba*, which are seen in the Sardinian "Giants' Tombs," the *allées couvertes* of France and elsewhere, the widespread "holed dolmen," and all the multitude of "vestigial structures," to use a biological analogy, represented in the protean forms of the Algerian and Tunisian dolmens, could have been invented independently of the Egyptian constructions.

All of these varieties of dolmens are obviously due to different stages of degradation of the Egyptian stone *mastaba*, as the result mainly of

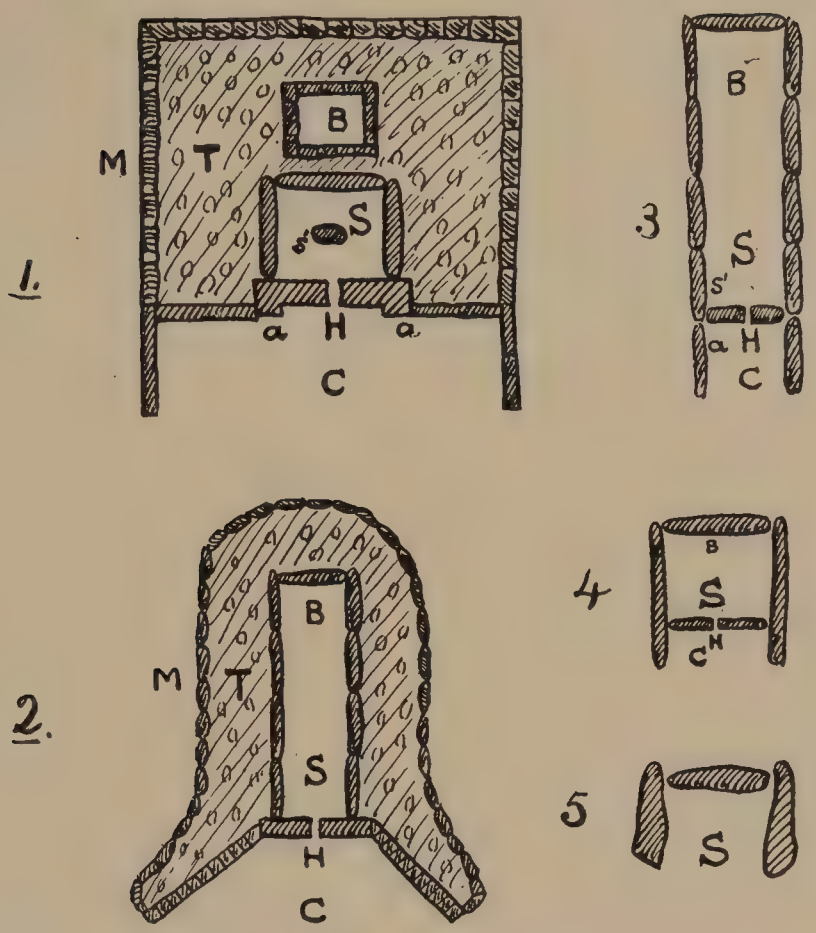
[1] In the December, 1913, issue of *Man*, Mr. G. Elliot Smith, F.R.S., has an interesting article on the *Origin of the Dolmen*. While we are not entirely convinced that the views set forth are correct, yet it is of sufficient general interest to warrant further discussion, and so we reprint it in full.

[2] G. A. Reisner and A. C. Mace, *Early Dynastic Cemeteries at Naga-ed-Dêr*, 1908 and 1909.

[3] J. E. Quibell, *Excavations at Saqqara*, paper read at British Association meeting, 1912.

[4] Hermann Junker, *Denkschr. d. k. Akad. d. Wissensch. in Wien*, Bd. LVI, 1912.

[5] W. M. Flinders Petrie, *Excavations at Tarkhan*, paper read at British Association meeting, 1913. See also *Man*, 1913, No. 85.



Diagrams to Illustrate the Evolution of the Dolmen

attempts to build such superstructures by craftsmen less skilled than the Egyptians were.

The essential parts of the Egyptian stone mastaba of the Pyramid Age, shown quite diagrammatically in the plan Figure 1, were: (a) the vertical shaft (varying in depth from a few feet to as much as 100 ft. in accordance with the wealth of its makers) leading to the burial chamber (B), in which the corpse, enclosed in a wooden coffin or stone sarcophagus, was immured; (b) a mound of rubble, which may be referred to briefly as the tumulus (T), surrounding the continuation of the shaft above ground; (c) four walls of masonry (the *retaining wall*) enclosing the tumulus and thus forming the *mastaba* (M), *sensu stricto*; (d) an enclosure on the side of the *mastaba* facing the river (*i.e.*, the east end as a rule, after the III dynasty), which may be referred to as the *chapel of offerings* (C); (e) on its western side, as a rule, the eastern retaining wall of the *mastaba* forms the west wall of the

chapel, and bears the representation of one or more false doors, one of which (the *stela*) (H), is regarded as symbolising the means of communication between the living and the dead, and hence as the place where the former can place offerings of food for the latter; and (f) hidden in the tumulus, somewhere between the chapel and the burial shaft is a small chamber (S), now usually known as the *serdab*, which was the home of the dead man or his disembodied spirit.[6]

This *serdab* was originally (late II or III dynasty) merely a small chamber behind the false door of the chapel, with its own western wall made in the form of a false door (Quibell), no doubt symbolising the manner in which the spirit entered this little hidden room when it came up from the burial chamber. Possibly, as Quibell suggests, there were also representations of the deceased upon the walls of this chamber. Whether this was the case or not perhaps further excavation will decide; but it is well known that in the Pyramid Age this *serdab* was built of stone (often of great vertical slabs, and roofed with one or more slabs); and there was placed within it a portrait statue (s^t) of the dead man (sometimes also statues of his wife, family, and servants) as a body for his disembodied spirit (Breasted); and a slit-like aperture (H) was often made to open into the chapel, as a means whereby the spirit could pass into the chapel and enjoy the food provided for it.

This conception of the *serdab* as a dwelling place for the dead man's spirit appealed strongly to the imagination of a superstitious people; and when the *mastaba* came to be imitated by less skillful workmen amidst less cultured peoples, say, for example, in the case of an Egyptian dying in some foreign country, where there were no craftsmen capable of carving statues, the *serdab* would still be retained. In fact it came to be looked upon as the most essential part of the superstructure, for was it not the dwelling for the dead man's spirit, and as such the means whereby that spirit could be prevented from wandering abroad and annoying the living. Thus the *serdab* increased in size and importance.

In the Sardinian "Giant's Tomb" (Fig. 2) the Egyptian *mastaba*-construction is most closely followed, for all of the following features (in addition to the characteristic orientation) are preserved: The chapel of offerings (C), usually called the forecourt, with a large carved stela (H), which is also the "holed stone;" the greatly overgrown *serdab* (S), the western end of which has become merged in the burial chamber (B), the tumulus (T), and its retaining wall (M). The size of the tumulus, and consequently the form of its retaining wall, is very variable, and in the solitary instance of this type of grave found in Ireland these features were missing.

When thus stripped of its investments (tumulus and retaining wall) the chapel and the overgrown *serdab* (which is now also the burial

[6] Dr. Allan Gardiner tells me that in the ancient texts reference is made to the dead man himself, and not his spirit, as the worker of evil.

chamber) alone remain (Fig. 3), and the result is the *allée couverte*. The rough representation of the human figure sometimes found in the vestibule (chapel) of the *allée couverte* (Fig. 3, *a*), alongside the holed stone (*stela*) corresponds to the bas-relief of the deceased found alongside the false door in the chapel of the Egyptian *mastaba* (Fig. 1, *a*), and the "cup-markings" of the dolmen probably symbolise food offerings.

The smaller "holed dolmens" (Fig. 4), whether they occur in Europe, the Caucasus, or India, represent a further simplification of the *allée couverte*, and among people who could not bore a hole in a stone slab, the eastern wall was omitted (Fig. 5). Thus the crudest form of rough dolmen is the descendant of the *serdab* of the Egyptian *mastaba*.

G. Elliot Smith.

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KINGS OF KISH.—Prof. C. H. W. Johns at the International Congress of Orientalists, at Athens presented a paper on *Some Little Known Kings of Babylonia*. In this paper he brought out the fact that "the publication of a new dynastic list by Professor Scheil had called attention to the Kings of Kish, who furnished more than one dynasty to Babylonia. The well known series of early Kings may form a first dynasty before that of Opis which would thus be followed by a second dynasty of Kish. But before the rise of the first dynasty of Babylon a number of Kings of the Amorite race had again brought Kish to a position of supremacy. Possibly Rinn-Annon belonged to them. The so-called usurper Kings of Sippara form a parallel. However, the ascertained facts about those Kings are few.

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Fig. 1. Nakum. Stela C

PREHISTORIC RUINS OF NAKUM, GUATEMALA[1]

THE Department of Peten in northern Guatemala together with the adjoining western part of British Honduras constitutes the most important center of the Maya culture. With the exception of northern Yucatan no part of the Maya area contains a greater number of important ruined cities. From a study of the few dates on the hieroglyphic inscriptions from this region it seems more than probable that we have here the earliest remains of the Maya civilization, and it also seems clear that the culture remained at its height until well toward the time when northern Yucatan gained the supremacy in the Maya world. The arts of architecture, of stone-carving, and of pottery-making show as high a development as that reached in any other part of the Maya area and in many cases far exceed in interest corresponding features in the other regions.

Tikal is the most important of the sites in the Peten district. Nakum undoubtedly comes second in point of size and from the point of view of architectural remains. Naranjo, discovered by Maler in 1905, is most important on account of its sculptured stelæ, although the buildings are entirely in ruins. La Honradez, Holmul, and Seibal 2d, all discovered by the [Peabody] Museum Expedition of 1909–1910, should also be classed as ruins of major importance. Mr. Merwin's exploration at Holmul in 1910–1911 shows that we have here the most important development of pottery yet found in the New World. Porvenir, Azucar, and Tsotskitam should be mentioned as ruins only slightly behind La Honradez, Holmul, and Seibal 2d in importance.

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The center of interest in the general plan of most of the sites is a large plaza around which most of the stelæ are placed. Adjoining this court on two or more sides is a system of connected quadrangles, the same building forming one side of each of two adjoining courts. Tikal, Nakum, Naranjo, and La Honradez thus present many points of similarity of plan.

The presence of stelæ carved on two sides is a feature which links this area with the Usumacinta district but marks it off from that to the north. The large number of unsculptured stelæ, however, is a feature uncommon in the south. The carved stone lintel of the Usumacinta is not met with here. Carved wooden lintels at Tikal seem to have taken their place at this site alone.

[1] Abstract of Mr. Alfred M. Tozzer's *Prehistoric Ruins of Nakum, Guatemala,* published by the Peabody Museum of American Archeology and Ethnology, Harvard University, being Vol. V, No. 3, of their Memoirs.

The roof-comb and its development may be studied to great advantage in the Peten district. The use of massive walls out of all proportion to room space is another characteristic of this area. . . . .

Nakum is situated in Guatemala almost directly north of Lake Yaxha in a beautiful level section of the Department of Peten. The name was spelled Nacun at first and later Nakcun by Périgny the discoverer of the ruins. As the Maya language is not spoken in the vicinity of the ruins it is impossible to determine the real name of the region occupied by the ruined city.

Nakum has in its favor the fact that it is a purer form of Maya. *Na*, the word for house, is a very natural component of a name given to a ruined city, and *kum*, written also *cum*, meaning *olla* or vessel, is also associated with the ruins. The word "Nakum" would therefore mean the "house or place of the ollas." As Mr. Thompson writes in a personal letter, "He or they who first came upon the ruins, probably as hunters or *milperos*, may have found in some of the ruined chambers incense-burners and votive vessels or the fragments of these vessels scattered around in profusion and so called it, the house or the place of the pots or vessels." The custom of the Lacandones (Tozzer, 1907) in placing incense-burners of their own manufacture in the ruins at the present time should be noted in this connection.

It must be confessed that the more proper form of the term would be Kumna as Labna, old houses, the name of a group of ruins in northern Yucatan. . . . .

APPROACH TO THE RUINS

The easiest way of reaching Nakum is by boat from Belize, British Honduras, to El Cayo at the head of navigation of the Belize River. During the greater part of the year motor boats run up this river at frequent intervals. Toward the end of the dry season *pitpans* are used. From El Cayo a good wagon road has just been completed to Benque Viejo, the frontier town, three leagues away. El Cayo and Benque Viejo are the headquarters of many of the *chicle* companies which operate through northern Guatemala and western British Honduras.

Owing to the extensive trade in *chicle*, trails run in every direction throughout this region. It is seldom necessary to cut paths for any great distance in order to reach the ruined sites. This is a great saving of labor, and the information gained from the *chicle* gatherers is most useful in locating ruins. In addition, food supplies are comparatively easy to obtain owing to the fact that the mule trains of the *chicleros* can often be depended upon for bringing in supplies. They go out loaded with the gum and are usually glad of a return cargo . . . . .

FIG. 2. NAKUM. TEMPLE U FROM THE NORTHEAST, AND MOUND 35

A more direct way is to take the trail running northward from Chunvis over a steep and high hill where the path divides. It is possible to reach Nakum by either of the two trails. By taking the one running west, after passing several abandoned *chicle* camps (Jato de Juan Cruz, etc.), you reach the trail from Naranjo to Nakum coming in from the south. By continuing straight on in a northwesterly direction, passing the Jato de Solomon, also called Invierno, the ruins are finally reached. This is the shortest way to Nakum, but there are many turns and many side trails which are perplexing. By keeping on directly north from Chunvis some distance beyond the trail to the west, just described, you make a long turn to the west and south, passing El Rio and Laguna Colorada, and finally run into the same trail already mentioned. The ruins are about one-half a league to the west of the main road, which continues northward. . . . .

SIZE

The main group at Nakum is about 1350 ft. from north to south, and 1000 ft. from east to west; 2000 ft. should be added to the length of the city from north to south if the Northern Extension is included in the measurement. The city proper covers only about a third of the ground occupied by the ruins of Tikal.

ASSEMBLAGE

The unit in the grouping of the buildings at Nakum, as in all the other ruins of the Peten area, is the court or plaza. There is a system of connected courts, and the plan presents a compact whole with a comparatively few mounds which seem to stand disassociated from any surrounding structures. The Northern Extension is unique, being a broken line of low mounds connecting the northern outpost of the city with the main group.

The plan of a site like Tikal or Nakum presents an entirely different appearance from that of one of the northern Yucatan cities. The latter has little unity, and the buildings appear to have little relation to each other. There is nothing in the topography of the country to the north to prevent a compact and well-oriented plan. The Usumacinta Valley sites are, again, quite different from those of the Peten area. In the the latter the topography does undoubtedly prevent any unity in the plan of the whole city. . . . .

ORIENTATION

The buildings all face roughly one of the cardinal points. Unfortunately it was impossible to find the front wall of a single building in a position so that a careful orientation could be determined. . . . .

CONSTRUCTION

It is no longer a novelty in discussing the Maya system of construction to point out the similarity between the form of masonry in some of the Maya sites and the modern system of concrete walls. Nakum furnishes many excellent examples of the non-structural character of the outer facing of stone. This serves simply as a veneer, covering an interior of concrete, a mixture of stone, sand, and lime. The weight of the building rests on this interior mass, and the fall of the outer covering of stone in no way impairs the strength of the building. In fact, the outer covering has in most cases fallen off. . . . .

Several of the structural weaknesses of Maya architecture appear at Nakum. The use of the wooden lintel is responsible for the fact of the fall of almost all the outer doorways. These are generally wide and the stone lintel is therefore not used to span the openings. When the entrances are narrow, as at Yaxchilan, and the stone lintel is employed, the buildings usually present a well-preserved façade.

Another element of weakness is the failure to use binding stones between the interior mass of concrete and the outer stone covering of the walls. The backs of the facing stones are flat and do not bite into the concrete behind. When the outer facing is composed of carved stones to form some design, it is much more common to find these

FIG. 3. NAKUM. ACROPOLIS FROM THE NORTH AND STRUCTURE G

blocks set into the mass behind with tenons. Some of the northern Yucatan buildings show fine preservation owing in part, no doubt, to this fact. . . . .

SUPERSTRUCTURES

Types of Buildings. In most cases it is possible to distinguish the two types of structures usually pointed out in Maya buildings, the pyramid temple and the residential type. The two are not as closely differentiated here at Nakum as at Tikal, where all the temples have the projecting portion at the back and the indentations at the sides together with the same arrangement of rooms, one behind the other. The pyramid temples at Nakum are usually more complicated as regards their plan and are not by any means uniform.

A development of the lateral chambered temple is to be noted at Nakum. Temple A might be classed with Structure 27 at Tikal. Both are built on high mounds and each has three entrances and two ranges of rooms. There is a decided tendency at Nakum to have single chambered buildings on the top of the mound at either side of the main structure. . . . .

The residential type of structure is, in general, similar to the corresponding type at Tikal, two series of rooms running lengthwise of the building with a single transverse room at either end. Successive additions to the general plan are often to be noted here. . . . .

Roof-combs. Roof-combs are not an important feature at Nakum.

There seems to be little doubt that this type of roof-comb on Temple A marks the turning-point in the history of this superstructure in the central Maya area. The perforations from front to back show the beginnings of a movement which led to the light lattice-work type of roof-comb seen on many of the sites in the Usumacinta area (Yaxchilan, Piedras Negras, and Palenque). The interior spaces, at the same time, suggested that the roof-comb could be built with a corridor-like room running lengthwise of the superstructure. The roof-comb of the Tzendales ruin shows this stage of the process. . . . .

Vaults. The typical Maya over-stepping vault is commonly employed in the interior of the buildings. The narrow room and the high vaulting of the interior rooms of Temple A recall the vaulting of the Tikal temples.

There are two examples which seem to show the nearest approach to a true concrete arch yet found in the Maya area, the two lateral doorways in Temple A. By a close examination of the masonry it seems impossible to believe that these could have been constructed without some temporary wooden form. The unevenness of the spring of the arch is to be noted. Perigny shows one of these doorways in detail. Neither of these arches shows the usual shoulder at the spring of the vault. This might invalidate the theory of Spinden that the shoulder is necessary in order to remove the wooden form. Mr. Merwin has found several vaults in the ruins in southern Yucatan which do not have this shoulder. With the exception of the two doorways in Temple A all the other vaults at Nakum show the offset at the spring of the arch.

The Maya vault has been much discussed. It is in no sense a true arch, but a corbelled or false arch with a capstone in place of the keystone. In many cases the sloping sides of the vault meet at the top and the capstone is not visible from the floor of the room. Dr. Spinden has suggested that an interior form of wood was necessary in the erection of these vaults. This is possibly true in a few cases where the stones of the vaults do not rest squarely upon each other but touch only at the outer edges. Dr. Spinden shows an example of such a vault from the ruins of Labna. The northern end of the room in Temple V at Nakum shows a vault where the stones rest squarely on one another. No temporary wooden form would be necessary in the erection of this vault. Numerous examples of wooden beams crossing from one side of the vault to the other are noted especially at Tikal.

These support the thrust of the vault, and were evidently placed in position at the time of erection. Temporary forms would be impossible in such a case. It is therefore better not to lay too much emphasis upon a single method of construction of the Maya vault. . . . .

Wall Openings. There are few openings in the walls at Nakum as compared with those at Tikal. There is none that may be called a window. The nearest approach to a window is the circular opening in the northwestern room of Temple N.

Often the wall is pierced by a large number of small holes a few inches in diameter. Cupboard-like depressions were found in a few cases. One of these in the Southern Annex of Temple N had an opening at the back running completely through the wall. The tie-hole a depression in the wall with a stick running across it embedded in the masonry on each side, was found in the upper chamber of the Southern Annex of Temple N. A similar feature was found at either side of the outside doorway of Temple I at Tikal, and there is little doubt that they were used to suspend curtains before the doors.

DECORATION OF BUILDINGS

The buildings at Nakum are remarkable for their lack of architectural decorations. The façades are almost entirely plain, broken by a simple medial moulding.

INCISED AND PAINTED DESIGNS ON WALLS AND FLOORS

The incised and painted designs found on the walls and in a few cases on the floors of the buildings at Nakum are not as elaborate as those noted at Tikal. These crude figures have never been satisfactorily explained. There is some probability that they were made by early Pre-Columbian visitors to the ruins who were not necessarily contemporaneous with the occupation of the city. A very few of those found are reproduced here, and these require little notice.

There seems to be no intentional grouping of the figures, and no significance need be placed on the relation of the various pictures found in the same room to each other. There is no great difference noted between those painted and those incised. Temple E has the greatest number of figures, the walls being literally covered with designs, some of which cover several feet. The serpent appears in various ways here.

The human form is common in the Nakum figures. Figure 4, *a*, shows a man in profile with a face with ape-like characteristics. Figure 4, *b*, is a figure in front view possibly, with a feather decoration on the head and also hanging from the elbows and the side of the body. Figure 4, *c*, probably represents a person speaking, although the speech signs so common in some of the ruins in northern Yucatan are not

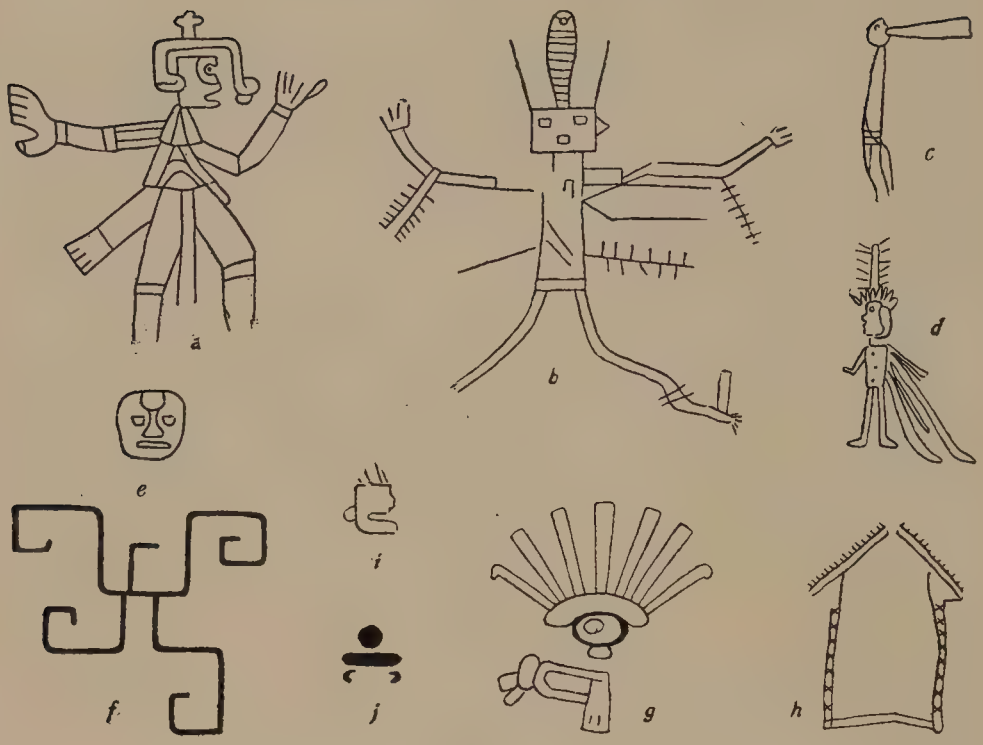

FIG. 4. FIGURES FROM NAKUM

usually found in this area. Figure 4, *d*, seems as if it might be post-Columbian with buttons indicated on the body. The feather element rises from the top of the head. A single face (Fig. 4, *e*) appears as one of the designs in Temple A.

One of the best executed figures, a swastika-like design in red paint, is on the back wall directly in front of the door of Temple E (Fig. 4, *f*). Another painted design (Fig. 4, *g*), in the same room, is difficult to explain. The elaborate stepped pyramidal temples incised on the walls at Tikal do not appear here. A single design (Fig. 4, *h*) may show a thatched house.

STELAE AND ALTERS

Although there were 15 stelæ and 11 alters discovered here only three of the stelæ were carved. The only altar which shows any large number of glyphs is that still standing in front of Temple C. But on none of them is the inscription distinct.

ALFRED M. TOZZER.

BOOK REVIEWS

DIE DILUVIALE VORZEIT DEUTCHLANDS[1]

BEGINNING with a review of the eolithic problem in which his conclusions are approximately the same as those of Obermaier, Dr. Schmidt passes to a study of the paleolithic period in Germany, region by region, a method justified particularly by the fact that the stations fall easily into 4 groups that are more or less isolated geographically: Swabian-South German, Southwest German, Rhine-Westphalian, and North German. The various stations of each group are described in detail, beginning with the Swabian-South German region where paleolithic stations are the most numerous and stratigraphically most perfect. Of the 19 stations in this group the reviewer selects Sirgenstein cave as representative. Primitive man lived here intermittently through the Mousterian (two levels), Aurignacian (three levels) Solutréan, and Magdelenian (two levels) epochs. Remains of the bronze and iron ages are also found capping the paleolithic deposits. Nothing earlier than archaic Mousterian has been reported from this part of Germany.

In the Southwest German group, an older industry, the Acheulian, is noted from three stations in valley deposits Sablon, Achenheim, and Ruederbach. In the Rhine-Westphalian region are likewise a number of loess stations. From a study of these and of Achenheim, Schmidt confirms Commont's discoveries in the valley of the Somme, that the industry of the ancient loess is confined to the Acheulian epoch, while the recent loess contains all later paleolithic cultures; Mousterian, Aurignacian, Solutréan, and Magdalenian.

[1] *Die Diluviale Vorzeit Deutschlands.* I. Archäologischer Teil von R. R. Schmidt; II. Geologischer Teil von Ernst Koken, Die Geologie and Tierwelt der Paläolithischen Kulturstätten Deustchlands; III. Anthropologischer Teil von A. Schliz, Die Diluvialen Menschenreste Deutschlands. Quarto, pp. xiii, 283, 45 pls. and 129 text figs. E. Schweizerbartsche Verlagsbuchhandlung, Stuttgart, 1912.

The North German region is remarkable for the complete absence of the later paleolithic epochs; Aurignacian, Solutréan, and Magdalenian. A single station represents the transition from paleolithic to neolithic times. The best known station of this group is Taubach which is classed as late Acheulian.

Schmidt's studies have done much to fix and clarify the sequence of faunas and culture epochs. The place of the Mousterian culture is at the base of the recent loess; of the two distinct Mousterian levels one is early (primitive) and the other late (La Quina type). Separating the Mousterian from the Aurignacian is a horizon characterized by *Myodes obensis*, a species of lemming. The division of the Aurignacian culture into three phases, (early, middle and late), is exemplified by the cave deposits at Sirgenstein. Stratigraphically and faunistically the Magdelenian is likewise divisible into three sub-epochs. Of these the first belongs to the horizon of the Greenland lemming (*Myodes torquatus*); it is also marked by the persistence of the mammoth, woolly rhinoceros, and cave bear, none of which however survived this phase. With the middle and upper Magdelenian occurs *Lagomys pusillus*. In the upper Magdalenian the Arctic micro-fauna is superseded by a more or less distinct woodland fauna; the reindeer is left as the only reminder of the earlier Arctic conditions.

Supplementing the part dealing with German finds are instructive chapters on the development of paleolithic culture (and especially of paleolithic art) in western Europe, from whence it spread eastward into and beyond Germany.

In Part II, the late Professor Koken writes most instructively concerning the geology and paleontology of the paleolithic stations in Germany (including also a few in Switzerland). He names seven successive faunal stages: (1) Early Quaternary fauna, of a Pliocene type (not yet found in Germany); (2) Early Quaternary fauna with *Elephas antiquus* and remains of certain Pliocene forms (Mosbach, Mauer, Süszenborn); (3) Antiquus fauna, with Pliocene forms (Frankenbach, Steinheim a. Murr, Mauer in part); (4) An early fauna of the mammoth, without *Elephas antiquus* and *Rhinceros mercki* (Canstadt); (5) Later

Antiquus fauna with *Rhinoceros mercki;* likewise mammoth, rarely *Rhinoceros tichorhinus* (Taubach); (6) Later fauna of the mammoth, *Elephas antiquus* and *Rhinoceros mercki* rare (Rixdorf, Rhoeben), first appearance of Arctic rodents, base of the recent loess, lowest level of cave and rock shelter deposits; (7) Equus fauna, mammoth and woolly rhinoceros still abundant, reindeer widely distributed, middle portion of recent loess and of cave deposits; (8) Late glacial fauna, horse and reindeer predominating, second appearance of Arctic rodents among which the Greenland lemming is the most abundant, upper part of recent loess and of cave deposits; (9) Post glacial, fauna, reindeer gone from central Europe, stag predominant, horse still plentiful, transition to woodland fauna.

The fourth fauna belongs either to the Riss glacial or to some minor advance of the ice; the fifth to the Riss-Würm interglacial; and the sixth to the Würm or last glacial epoch. The industrial remains from Wildkirchli caves in Switzerland, Professor Koken would place either near the close of the Riss-Würm interglacial or during the Laufen retreat (a warm phase of the Würm glacial).

In part III by Dr. Schliz there is a correlation of fossil human remains from Germany with those of the rest of Europe. The lower jaw of Mauer heads the list in point of age (Piltdown had not yet been reported). The principal Aurignacian races are represented by Brünn, Cro-Magnon, and Grimaldi, with Combe-Capelle as a cross between Brünn and Cro-Magnon.

In the final chapter Dr. Schmidt makes use of the results of his explorations in an effort to solve the problem of a chronology for pre-neolithic times. He feels justified in coördinating the Magdelanian culture and its associated Arctic fauna (Greenland lemming) with the Bühl stage. He is likewise convinced that there was a continuity of Arcto-Alpine fauna from the Mousterian to the early Magdalenian. In his scheme the Solutréan epoch would coincide with the Achen retreat, the Aurignacian would extend back to the second maximum stage of the Würm glacial epoch, leaving the Mousterian to cover the Laufen retreat, the first maximum advance, and a small part of the Riss-

Würm interglacial. This makes a double provision for a Mousterian with relatively warm fauna. Both the Acheulian and Chellean are placed in the Riss-Würm interglacial epoch, and the lower jaw of Heidelberg in the Mindel-Riss interglacial. Schmidt therefore agrees substantially with Obermaier in the correlation of cultural epochs with the various phases of the Ice Age, admitting however that it is still too early to speak with finality concerning the first part of the lower paleolithic period. There is certainly much to be said in favor of putting the primitive Chellean or pre-Chellean in the Mindel-Riss interglacial epoch as Penck, Commont, and certain others have done.

The work of Dr. Schmidt and his two co-authors is admirably illustrated and supplemented by a wealth of references to the literature.

George Grant MacCurdy.

Yale University.

DIE ALTTHURINGISCHEN FUNDE VON WEIMAR[1]

IN THIS work of historico-archeological character, Dr Götze makes splendid use of the antiquities in the City Museum at Weimar, that had been found at various times since 1886 in an ancient cemetery within the limits of the present city of Weimar, as well as of specimens from other parts of Weimar and its immediate environs. About half the specimens from this old cemetery are in the Royal Museum of Ethnology, Berlin; these will form the basis for another work.

The graves were particularly rich in arms, ornaments, and articles of household use. The mode of burial was the one dominant during the period in question. In a single instance the coffin was partially preserved and showed that use was made of a tree trunk.

[1] A. Götze. Die altthüringischen Funde von Wiemar (5–7 Jahrhundert nach Chr.) Verlegt bei Ernst Wasmuth A.-G. Berlin, 1912. Quarto, 72 pp., 18 heliotype pls., 1 colored pl., etc.

The disposition of the grave objects with reference to the skeleton was often such as to throw light on the manner in which these objects were used.

Curiously enough the Conquest of Thüringen by the Franks in 531 left no record of itself in this old cemetery, which was in use about 100 years before and 100 years after the conquest.

Of special interest are certain inscriptions. On a silver spoon *in Niello* is the word *Basenae*, the name of a Thüringian queen of the V century who later became the wife of the Frankisch King, Childerich I, and mother of Chlodwich I. Dr. Götze was able to decipher a number of runic inscriptions on ornaments, as well as to confirm archeologically historical traditions concerning the relations between the Thüringian royal family and the Ostrogothic King Theodorich. He concludes that Weimar was in all probability the seat of Queen Amalaberga, a niece of Theodorich the Great, and therefore also the residence of the last Thüringian King Hermanfried.

GEORGE GRANT MACCURDY.

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ARCHEOLOGICAL NOTES

ABRAHAM THE INVENTOR OF AN IMPROVED PLOW. In Volume XI of RECORDS OF THE PAST we reproduced a drawing from one of the Babylonian tablets described by Dr. Clay, showing a Babylonian plow with tube for sowing grain which dates to the XIV century B.C. In this connection it is interesting to note that J. A. Montgomery "calls attention to a passage in the Judaistic *Book of Jubilees*, according to which Abraham was the inventor of the seeder attached to the ancient Babylonian plow."

INTERNATIONAL CONGRESS OF AMERICANISTS—The proceedings of the 18th Session, held in London May 27–June 1, 1912, are now ready, and will be sent to members imme-

diately. Changes of addresses should be reported at once to the Secretary, 50 Great Russell Street, London, W.C. There will be a limited edition for sale to non-subscribers by the publishers, Messrs. Harrison and Sons, 45 Pall Mall, London, S.W.

The work contains 566 pages of text, 50 plates, 236 illustrations in the text and 88 pages of preliminary matter, including an account of the meetings and a number of subjects of importance for the ethnography and archæology of the Americas.

THE PHILISTINES.—Recent discoveries pointing to the relationship of the Philistines, and the people of Keftiu concerning which we published an article in RECORDS OF THE PAST Vol. XII, pp. 119–122, is stimulating considerable research along this line. At the recent meeting of the British Association for the Advancement of Science, at Birmingham, Mr. G. A. Wainwright presented a paper on *The People of Keftiu and the Isles from the Egyptian Monuments*. He said in part: "Hitherto the people of Keftiu and the Isles have been regarded as one, and as the equivalent of Cretans. But on analysis the greater part of the Keftiuan civilization is not Cretan but Syrian. The Philistine confederacy consisted of a group of allied tribes, the name of one of which (Cherethites) is translated in the LXX as Cretans. The Caphtorim are translated as Cappadocians. Hence Caphtor is probably Asia Minor, and in Rameses III's sculptures of the Pulosatu or Philistines they are shown with an Asia Minor dress and equipment. Therefore the identification of both Keftiu and Caphtor with Crete has come about owing to the presence of Cretans with each of them; these being the People of the Isles with the Keftiuans, and the Cherethites with the Caphtorim or Philistines proper. Keftiu then appears to be Cilicia.

"For a view of her civilization it is necessary to isolate it. To do this a *corpus* of that of each extreme—Syria and the Isles—is taken. Out of the 87 Keftiuan objects available for study 60 are found to be of Syrianising types, while 27 are peculiar to Keftiu."

INSCRIPTION RECORDING A SEA FIGHT IN THE HELLESPONT.—An inscription on a block of Pentelic marble from the Acropolis at Athens has recently been found. In an article in the *American Journal of Archæology*, Vol. XVII, pp. 506–519, Prof. Allan C. Johnson remarks that the special value of this inscription is "that we gain from it for the first time a record of a sea fight in the Hellespont." "This naval battle mentioned in the new inscription was evidently fought in the Hellespont, probably in the vicinity of Abydus. The Athenians were completely defeated and withdrew without attempting the rescue of their shipwrecked comrades. There is no record of such a battle in the annals of Athenian history, but. . . . we may assume that the naval engagement in the Hellespont is the first of the two recorded by Diodorus."

"We are able to ascribe this battle with certainty to the contest between the Athenians and the Macedonians in the Greek struggle for independence which followed the death of Alexander. The object of Athens in attempting to gain control of the Hellespont was two-fold: To prevent the passage of Macedonian troops from Asia to Europe, and to attempt to regain her position as mistress of the seas. Students of the strategics of this war have always contended that Athens made a great mistake in not perceiving the importance of the command of the Hellespont, and in failing to contest the crossing of Alexander's veterans to Europe. We now know that she attempted to do so, but her failure to realize the importance of this move earlier in the war and the subsequent defeat of her forces at the hands of Clitus off Abydus decided the fate of the struggle. With this and the following battle near Amorgus the history of Athens as a sea power is closed."

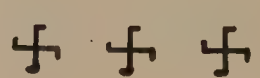
CATACOMBS IN TUNIS.—Near the ancient city of Hadrumetum which is now called Susa, in Tunis, there are very extensive catacombs which are not widely known although they were discovered soon after the French occupied the city in 1881. A French colonel who was roaming over the Sabatier plain, outside

of Susa looking for ruins, thrust his cane into a little hole in the ground and found that there was an empty space beneath. With the spades of his soldiers he soon discovered a solid well-built Roman tomb and under it a vault. When that was broken into, the excavators came upon a long gallery partially filled with earth which they immediately began to clear, and found on either side of it chambers or *loculi* for the dead all closed with huge tiles or slabs. Soon three galleries were found, but an unfortunate crumbling of the earth along with a failure of funds put an end for a time to any forther search.

"It was not until 1901 that work was resumed, chiefly through the Abbé Leynaud who had been the secretary of Cardinal Lavigerie in Carthage. He was named Curé of Susa, and he immediately determined to resume the interrupted work of the French colonel. With the help of a distinguished archeologist Dr. Carton, an archeological society was formed in Susa and on November 17, 1903 the Abbé himself was at work, digging in the underground galleries. To his delight he soon came upon a marble slab on which was written the name Veneria. It was the tomb, he concluded, of a converted pagan. The name suggested the pagan, but the words *in pace* which were cut in the stone showed that she had evidently been won to the Faith.

"From that on success followed success. The soldiers of the garrison gave their help and in a few years five catacombs were uncovered containing two hundred galleries whose long lines of sepulchral chambers arranged one above the other were estimated to contain 15,000 dead."

The inscriptions are usually very simple, consisting merely of the name, age and date of burial with the words *In pace* or *Dormit in Pace* added. Such symbols as the cross, sometimes like the Greek letter *tau*, the anchor, fish, palm leaves and doves are found on the walls of the catacombs.



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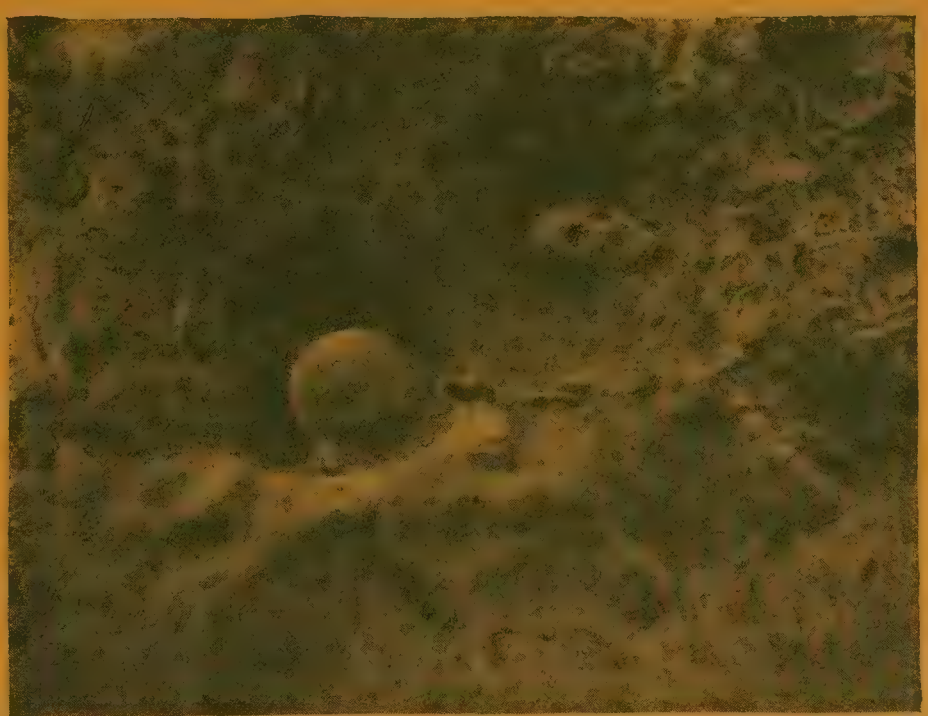

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Shell Necklace on Prehistoric Skeleton from Nebraska

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MARCH-APRIL, 1914

PREHISTORIC SHELL NECKLACE FROM NEBRASKA

JANUARY 14, 1914, in company with a party of well-known Falls City, Nebraska, citizens I examined a "burial" about 1½ miles north of the village of Rulo, Richardson County, not far north of the Kansas line. In my party were Rev. James Noble, rector of St. Thomas' Episcopal Church; L. C. Edwards, register of deeds of Richardson County; A. R. Keim, editor of the Falls City *Daily Journal*; Robert Rule and Harry Jenne, Falls City business men and Col. Charles Marion, a well known auctioneer of that part of Nebraska.

Several weeks prior to my visit I had been informed of the fact that human bones had been found protruding from the south wall of a ravine which had been cut into the hills by rains. As it is a common thing to find bones almost anywhere in the Missouri Valley I was not especially interested, but I learned later that "Spanish" coins of a "very ancient date" and many trinkets of "silver" had also been found with the remains. I decided to make

View Showing the Conditions Found by the Writer's Party

a personal investigation in behalf of the State Museum, University of Nebraska. As this paper is not intended as an expose of an attempt to create interest in a "plant" of valueless "junk," it is only necessary to state that the job was a very bungling affair and has been pretty thoroughly aired through the investigation of Mr. Floyde A. Morehouse, a son of the tenant on the farm. It might be stated, however, before disposing of that part of the matter, that the supposed Spanish coins were in reality emblems of the Catholic Knights of St. George on which were inscriptions in Latin. The fact that Nebraska has had for a year a statute making such forgeries a crime, was one of the agencies in preventing a very large traffic in the spurious "relics" planted with what were without question pre-Columbian remains.

The bones were first found three months before my visit and scores of men and boys of the neighborhood had dug them out and whatever objects had been buried with the skeletons had been destroyed, namely: a pottery bowl and some shell necklaces. Most of the skeletons were scattered to the winds and little care had been taken to secure the skulls in entirety. When the first of the planted objects were found every interest seemed to have been exerted to secure them and the Indian things, as the bones are Indian, were given scant attention.

A few weeks prior to my visit Editor Keim and Mr. Edwards of my party performed excellent work at the place and secured a fine skull around the neck of which was a shell necklace. Photographs of the bones in situ were made and all of their work and measurements were carefully carried out. The photograph of the skull

accompanying this paper was made from one of the two skulls secured by Messrs. Edwards and Keim. The photographs accompanying this paper were made and contributed by Mr. Edwards.

Messrs. Edwards and Keim presented the best skull and some of the bones and beads to the State Museum and the entire neck-

FIREPLACE. THE RULE SHOWS EXPOSED FIREPLACE 35 PACES WEST OF THE SKELETONS AND 7 FT. FROM THE SURFACE

lace and bone implements have also been generously contributed to the museum.

On arrival at the gully from whose wall the skeletons were taken it was almost impossible to perform any careful labor as the face of the ravine had been thrown down and a great tree had been undermined and toppled into the ravine.

The bone-bearing stratum, however, appeared to be 7 ft. from

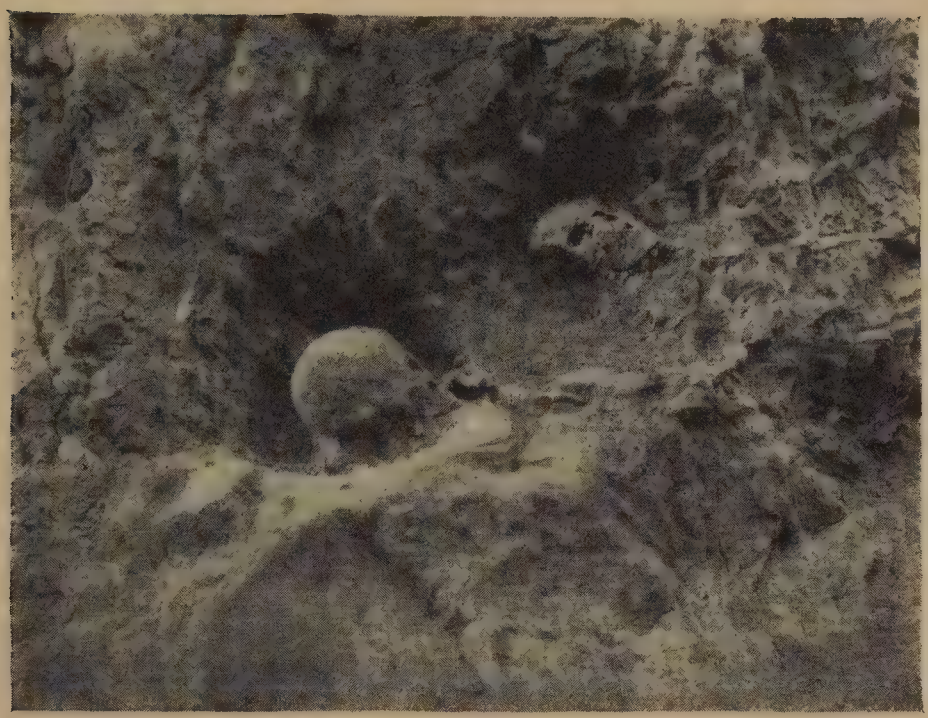
the surface. The bones lay in compact Kansas drift clay strongly saturated with oxide of manganese. With considerable difficulty, owing to frost, our party secured one almost perfect skeleton including three antler and bone pre-Columbian implements, and a complete shell necklace surrounding the neck of the skeleton and lying along its arms. The shell beads were removed with great care by Mr. Morehouse and in the necklace were 256 shells. Many

Foot Rule Under X Shows the Bone Bearing Stratum, 7 ft. Below the Surface

Photo by Lewis C. Edwards

of them as well as many of the bones were covered with oxide of manganese and some of the people thought they had been burned by fire.

It is quite likely that the shell necklace is the only one in existence west of the Mississippi River. The makers had taken what are sometimes called "periwinkle" shells and rubbed them down on one side thereby creating a second opening through which a cord



TWO SKULLS IN PLACE. SHELL NECKLACE SHOWS BENEATH THE JAW OF THE RIGHT HAND CRANIUM

Photo by Lewis C. Edwards

could be pushed, as shown in the accompanying illustrations. These shells have been identified by the director of the National Museum, Washington, D. C., to whom some were sent by Dr.

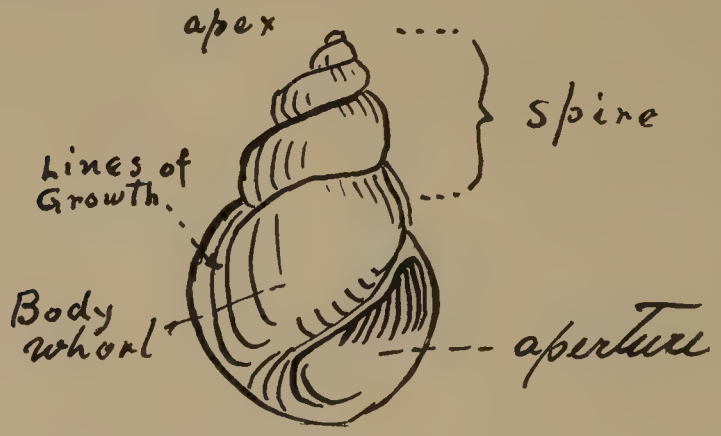
OBVERSE AND REVERSE OF THE BEADS SHOWING THE NATURAL APERTURE AND HOLE ARTIFICIALLY MADE

Erwin H. Barbour, curator of the Nebraska State Museum, as "*Anculosa Praerosa*, Say, which is found in the Ohio River watershed and in especial abundance at the Falls of the Ohio. It does not live west of the Mississippi River, but reaches northern Georgia, Tennessee, Alabama and Mississippi."

Stephen Cunningham, the owner of the property where the beads were found, has presented them to the Nebraska State Museum. He had stopped excavation on the land sometime prior to my visit, but kindly allowed our party to prosecute exploration unhindered.

In all 16 skeletons were removed from the gully and around the neck of each had been a string of shells beads, but as they were considered of no value few were saved.

Just what manner of burial had taken place was impossible to determine owing to the work of the despoilers. But the face of the gully showed 3 ft. of accreted soil and 4 ft. of mixed light and dark soil covering the bones. In fact I am not sure that a burial had



Surface Anatomy of the Shell from Which the Beads Were Made

been attempted as it seemed to me the clay upon which the bones lay resembled more closely the floor of an aboriginal dwelling than a grave. Thirty-five paces west of the bones the same side of the gully showed a fire place and a trace of what may have been a floor of a dwelling 40 ft. in diameter was made out. The mixed soil found above the bones resembled soil forming the roofs of underground houses in counties of the state farther north.

One man living in that neighborhood 50 odd years declared that an old "Indian" trail led up from the river, a few hundred yards away, and passed over the place the bones were found. He said that erosion had cut the gully in recent years largely by means of water from the hills rushing down the old trail. He had never

SKULL AND BEADS PRESENTED TO THE NEBRASKA STATE MUSEUM BY MESSRS. EDWARDS AND KEIM

known of a mound's existence there in his time. The bottom of the gully was about 1 ft. higher than the flood plain of the Missouri. It is expected further exploration of the ravine will determine more about the burial if burial it was.

Not the least enjoyable part of the trip was partaking of a splendid dinner prepared by Mrs. J. F. Morehouse. When our party arrived at her farm home a neighborhood quilting bee was in progress in the upper part of the house and during the afternoon a dozen of the ladies visited our party at work.

One result of the exploration of the gully site will be the formation of a society for the preservation of Richardson County's "records of the past" and exploration of underground house ruins thereabouts is to be undertaken by Messrs. Edwards and Keim this year.

ROBERT F. GILDER,
Archeologist Nebraska State Museum.

Omaha, March, 1914.

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REUBEN GOLD THWAITES

OCTOBER 22, 1913, there left life for a larger life, one who in the short time allotted man had done his full share of the world's work, and done it so well and so wisely, that the field of scholarship is poorer for his absence. It is difficult to think of Mr. Thwaites and death at the same time, for he was so vitally alive to all the best of life. A nature lover, his habits of walking and close observation brought him constant pleasure in the rural surroundings of his home. A human-nature lover, he had friends innumerable on both continents, and was in touch with all the broad movements for scholarly expansion in Europe, Canada, and the United States.

A Boston boy of English parentage, stepping in 1886 from the editorial chair to the superintendency of the best organized historical society in the younger states, he found in the Middle West his true home and vocation. The task bequeathed him by his eminent predecessor, Dr. Lyman C. Draper was nobly fulfilled. At his earnest solicitation and under his careful planning, the state housed the Wisconsin Historical Society in a magnificent building, where in coöperation with the University library, the great collections offer unique opportunities to thousands of students.

Dr. Thwaites was a great librarian and a great historical secretary; but he was more. He was a great interpreter. He believed

in bringing the treasures of historical sources to the people in the vernacular, hence he edited and had translated the *Jesuit Relations*, and papers from the *Archives of Paris*, giving the early French history of the Middle West. New editions of *Hennepin and Lahonton* are credited to his editorial care; and the new western school of historians is his debtor for *The Early Western Travels* in thirty-four volumes, and the *Original Journals of Lewis and Clark*.

This was not enough, however, for his broad helpfulness. He was especially happy in interpreting these and other documents for the general reader. His *Wisconsin* is one of the best state histories; *Rocky Mountain Explorations*, the lives of Daniel Boone and Marquette, the essays in *How George Rogers Clark Won the Northwest*, and his volume on *New France*, in the *American Nation Series*, as well as his volume on the *Colonies*, attest his power as an historian to make the past live for the average reader. His lectures attested the same gift; hundreds of audiences throughout the west have listened to him with pleasure and profit; and the last few years his classes in the University of Wisconsin, where he was appointed lecturer, proved his popularity with the students.

Mr. Thwaites was also a great friend, many are the testimonies to his unobtrusive but generous kindness; he was a welcome guest at every home and at every professional meeting. Simple, sincere, full of kindly humor, interested in all concerns of men and women, Reuben Gold Thwaites led a rich and full life, and laid it down in the fullness of his powers.

Louise Phelps Kellogg.

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Inscription of Nebuchadnezzar

INSCRIPTIONS OF NEBUCHADNEZZAR AND NARAM SIN

ABOUT a year ago there was bought for the Babylonian collection of Yale University a large and beautifully inscribed clay cylinder, about 10 in. high, which had been inscribed for Nebuchadnezzar, who reigned over Babylonia from 605 to 561 B.C. This royal inscription of Babylon's great monarch had been found at a site south of the capital on the Euphrates, almost due west of Nippur, which is at present called Wana-Sedoun, which on Kiepert's map is written Wannet es Sa'dun. It was customary to make several duplicates of historical inscriptions of this character, which were walled up in the buildings that were constructed or restored, but for some unknown reason the scribe made additional copies of this royal record.

In the inscription Nebuchadnezzar, after giving his vainglorious titles, recounts his deeds with reference to the restoration and enlargement of the walls and moats of the city, and especially the different ancient temples in and around Babylon, among which was the ancient sanctuary of Marduk, called Esagila. In this connection he informs us that he rebuilt also its tower, called Etemenanki, which is the ancient tower of Babel, mentioned in the Book of Genesis. In the closing part of his long inscription the king records his building operations in connection with the temple at Marad. He writes:

> At that time for Lugal-Marada, my deity, his temple in Marad, which, from distant days its old foundation stone no previous king had seen, I sought for its old foundation stone, I beheld, and upon the foundation stone of Naram-Sin, king, my ancient ancestor, I laid its foundation. An inscription with my name I made and placed in the midst of it.

This is followed by a prayer to Lugal-Marada to look with favor upon the work of his hands, and grant him length of days, abundance of prosperity and security of reigning.

There are a number of such references in building inscriptions to foundation stones that had been seen by later builders, for they

were religiously and architecturally an important feature of the building, reminding us of the prophet Isaiah's words, "Behold I lay in Zion for a foundation a stone, a tried stone, a precious corner-stone of sure foundation," Nabonidus, the father of Belshazzar, in the account of his restoration of the temple in Sippara tells how in searching for the foundation stone he dug down 18 cubits until he was permitted to behold the foundation stone of Naram-Sin, which during a period of 3200 years no king had seen. Doubtless when the temple Ebarra is excavated these stones will be found. Some modern scholars maintain that this chronology must be shortened a thousand years, while others in the light of recent discoveries hold that Nabonidus knew more about Babylonian chronology than recent scholars. However, Naram-Sin lived between 2000 and 3000 years prior to Nebuchadnezzar.

More recently a stone inscription was also secured for the Yale Babylonian collection which had been found through illicit diggings by the Arabs at the same site, namely, Wana-Sedoun. It is an inscription of this ancient king, Naram-Sin, whom Nebuchadnezzar claims as an ancestor. The inscription, which a Yale professor just translated, proves to be of the greatest interest, for it is one of the foundation stones which Nebuchadnezzar informs us he saw. The inscription reads as follows:

> Naram-Sin, the mighty king of the four quarters, the subduer of nine hostile armies in one year, when those armies he overcame, and three of their kings he bound and led captive before the god Enlil, in that day Libet-ili his son, patesi of Marad, built the temple of Lugal-Marada in Marad. Whoever alters this inscribed stone may the gods Shamash and Lugal-Marada tear out his estate and exterminate his seed.

This is not only one of the foundation stones of Naram-Sin which besides the inscription, had a small round depression in the center of it, the exact significance of which is not yet fully appreciated, but it gives us the name of Libet-ili, another son of Naram-Sin, who was the patesi or priest king of Marad. But more important than all else the inscription enables us to determine definitely that Wana-Sedoun represents the site of the ancient city of Marad, well known from other inscriptions, because not only the inscription

INSCRIPTION OF NARAM-SIN

of Nebuchadnezzar was found there, which refers to the restoration of the temple of that city, but the inscription of Naram-Sin which records the actual building of the temple was found at the same site. We are therefore permitted not only to look upon the inscription of this ancient builder of Babylon, perhaps the greatest builder in history, but also upon what he had seen and had regarded as very archaic in his day.

ALBERT T. CLAY.

Yale University.

"The Tsungli Yamen." Height with Stand, 17 inches

Photo by G. H. Reynolds

"THE TSUNGLI YAMEN"

DURING my first stay (1901–04) in the Far East, when the worst part of the Boxer troubles was over, Shanghai was a fascinating city in which to live, for not only were troops of many nationalities garrisoned there pending their final departure, but among the members of the clubs, where the foreign officers gathered in numbers as transient guests, it was well-known that many Chinese treasures were changing hands.

At Shanghai I met in 1901, in April I believe, a French army officer, billed to return with his troops. Although I had bought one or two unimportant though attractive trinkets, that hailed from Peking, I hesitated in purchasing from my Gallic friend an uncommonly beautiful sang-de-boeuf vase which he desired to dispose of, simply because, at the age of 19, I knew a great deal less about Chinese ceramics than I do now. Any child could see that the vase was exceptionally beautiful, but the price was somewhat staggering to a young man who had but a few Mexican dollars in the bank.

Finally I got hold of Mr. Liu Kee, a far-famed native expert on Chinese porcelain, at that time in the employ of the English collector Mr. Arbuthnot. Liu Kee told me at once to buy the vase, if I could; and I did. It was promptly transferred to "Ka Lee" on Nanking Road, where I lived; and Mr. Arbuthnot himself honored me with a call in order to inspect the piece.

I imagine that Liu Kee had an uncomfortable half hour with his chief when they left my rooms, because, after examining the vase, Mr. Arbuthnot pronounced it a superb specimen of Kang Hsi (1662–1722) sang-de-boeuf porcelain, offering considerably more for the piece than I had paid the French officer. However, I declined.

Although the officer in question said little about how he obtained the vase in Peking, he did tell me, that it was procured from the palace of His Imperial Highness Prince Ching, of the reigning Manchu family, for so many years Chinese Minister of Foreign Affairs or Head of the Tsungli Yamen, as the Department of

State in Peking was then called. During the summer of 1901 I gave a merry christening party in Shanghai, and we named the vase, out of respect for its former imperial owner, "The Tsungli Yamen," under which name it has since been known.

I sent the vase to Denmark, and it remained in my mother's drawing-room until September, 1913, when I brought it to America. I received another offer for it in 1906, while living in London, but again I resisted the temptation.

Dr. Arnold Genthe, who has taken several of his remarkable color-photographs of "The Tsungli Yamen," considers its brilliant color and noble shape the most beautiful he has ever seen; and the London expert, Mr. A. Wm. Bahr, who yearly visits America, spoke of its "fine glaze" and "its rich red glow."

To describe Chinese monochromes is impossible. It has been tried by such a great writer on Eastern art as Dr. Stephen W. Bushell and by Mr. Cosmo Monkhouse, besides by Messrs. Bahr, Gorer and Blacker. Not only do their descriptions prove the absolute necessity for *seeing* single-color pieces, whether they be green Lang Yao, red Lang Yao, later sang-de-boeuf, antimony-yellow, powder-blue or what not, but their writings prove insufficient and, as a rule, inconsistent with the catalogues, composed by the same men for private collectors.

The less said, therefore, in a descriptive vein about "The Tsungli Yamen," the better. Let this suffice: It is a large nobly-shaped vase, measuring more than 14 in. in height, not counting the carved stand, and nearly 27 in. in circumference. The color of the crackled glaze—*crackled among Chinese "reds" only, when it is sang-de-boeuf*—shoals into vivid flame-red of yellowish, not bluish hue at the neck, where the "flames" disappear in the incomparable serenity of palest apple-green, until the edge or rim is reached, where the pure, white, translucent and thoroughly vitrified paste shows as a well-defined ring. Downwards from the flaming neck, the glaze becomes ruby and garnet, until toward the bottom, still darker shades of red are reached—a detailed color-description being quite out of the question.

A great deal of nonsense has been spoken and written about Chinese porcelain; and collectors in America seem eager to accept

as correct everything that is stated by the professional dealer and "expert-for-the-hour." The natural white rim of a well-potted piece has thus, even by genuine experts, been called, erroneously of course, the line of white "glaze" which "defines the rim." This is misleading, because "glaze" is the very thing which it is not—it is the vitrified porcelain itself.

Also, our Chinese cousins are often moved to smiles due to the feverish agility with which we turn every piece of Chinese pottery upside-down in order to behold its bottom with wise and searching eyes—finding oftentimes nothing whatever, in which case the "connoisseur" sadly shakes his head, generally saying just as much as he found. Such performances are rather entertaining, as the custom originated with the desirability of looking for a mark. Now, it so happens that there does not exist a reputable piece of sang-de-boeuf, from 150 to 250 years old, that possesses a mark; and the finish of the glaze, if any, of the bottom varies so much, and is so often obscured through certain finishing touches (grinding, for instance) by the potter, that the eager turning of the specimens becomes comical, the condition of the foot being, comparatively speaking, a side-issue.

It is believed that the first red color used in the world of Chinese ceramics was the so-called chi-hung or sacrificial-red of the Ming dynasty (1368–1643). This Ming red is distinctly a brownish, though frequently a most interesting and beautiful red. Dr. Bushell says that the reign of the emperor Kang Hsi (1662–1722) of the succeeding Tsing dynasty (1644–1911) "forms the culminating period of ceramic art in China," but it is clear that in so saying that great sinologue refers to monochromes only, inasmuch as decorated pieces reached a much higher plane during the reign of Kien Lung (1736–95) than at any other time, before or later.

The highest type of Chinese sang-de-boeuf porcelain is said to be the so-called Lang Yao (Lang ware), but unfortunately, the term "Lang Yao" is as much abused, as far as its meaning is concerned, as the term "gentleman." Lang-ting Tso was a famous Viceroy of Kiangsi province under Kang Hsi, and he held office until 1688. Not far from Kiukiang, on the Yangtze river, in Kiangsi, we find at Ching-teh Chên the imperial potteries of old,

from whence a great number of the most important pieces of porcelain have come. Viceroy Lang was in charge of the potteries, and during his supervision wonderful monochromes were attained.

The Chinese themselves ascribe to his administration the slender (average 18-inch) vessels of clouded or blotched sang-de-boeuf, catalogued as Lang Yao, those mottled pieces which some collectors prefer to the more serene and homogenous products of the same period, which may not have been turned out previously to 1688, but which nevertheless are Kang Hsi (1662–1722) pieces—a fact we shall certainly learn swiftly enough from the dealers and professional cataloguers themselves, as soon as the supply of the stereotyped 18-inch baluster vases has hopelessly given out. Many of these pieces, moreover, are distinctly freaks of the kiln, and they have earned their high commercial value and unlimited praise for the same reasons, which gained for the freaks in Barnum's circus a world-wide reputation.

Although a piece like "The Flame" in the J. Pierpont Morgan collection, and an example like No. 158 in the George R. Davies collection (now dispersed), for which piece Mr. Gorer recently obtained $15,000 in Philadelphia while "The Flame" is said to have commanded $18,000 at one time, are both beautiful and interesting, they do not, of course, compare well or at all with such a majestic production of inspiring beauty as the large 17-inch vase in the Morgan collection, in the Metropolitan Museum of Art in New York, catalogued under No. 737. No one ever asked whether No. 737 was "Lang Yao" or not, and no one ever cared whether the enamel had been ground off around the foot or not, because the piece is in no way a freak of the kiln, and towers high above its fellows in beauty and grace.

Much more could, of course, be written about these absorbing questions of kilns, copper-silicates and the potter's art, but space forbids. It is however, most gratifying to know, that very beautiful pieces of Chinese sang-de-boeuf porcelain are on public view, like the afore-mentioned vase, No. 737, of the Morgan collection, which collection otherwise, unfortunately, harbors such a distressing number of non-representative "examples," as for instance almost all its "peach-blow" amphoral vessels.

There is, however, in this country at least one matchless specimen of the crushed-strawberry-and-cream colored glaze known as "peach-blow," namely a graceful little 6-inch vase, presented to the American by the Chinese government five years ago, when Tang Shao Yi came to Washington as special ambassador. On January 6, 1909, Taotai Yung Kwai of the Chinese legation called on Dr. Richard Rathbun, in charge of the U. S. National Museum, accompanied by two members of the special embassy, though Tang did not come. He handed to Mr. Rathbun a little box containing this priceless example of "peach-blow" in the name of his absent Excellency, and Mr. Rathbun handed the box to Dr. Walter Hough, who in his turn gave it to me. I carried these 40,000 odd dollars worth of Chinese porcelain, with much trepidation, to the central hall of the Museum, where, I presume, it still remains on public view.

When I went to China the second time, in 1907, I was often told, that it was now a matter of great difficulty to obtain any good pieces of porcelain, especially "reds," and I have since been informed by Mr. Parish-Watson that he gathers more good Chinese pieces outside of China than within the boundaries of that republic. I had no time, however, during my second stay in China for ceramics, because, as I explained in this magazine's issue for January–February 1912, I was busy with affairs concerning the Nestorian Monument of Sian-fu, of which *stela* I brought a 2-ton, 10-foot replica to New York. Since 1908 I have given a little more time to ceramics—in itself a life-study, since something new is always certain to crop up.

Last September I made a special trip to Denmark in order to bring Prince Ching's former vase, "The Tsungli Yamen," to this country, in which I succeeded without mishap. The vase now rests in a New York safe-deposit vault until—that is my hope—it shall be put permanently on view in some American museum for the benefit of the people.

Frits V. Holm.

Copenhagen, Denmark.
p. t. New York.

PREHISTORIC FLINT QUARRIES AND IRON WORKINGS IN SWEDEN[1]

DOCTOR NILS OLOF HOLST in an important contribution upon this subject sets out with a statement of his views about the length of post-glacial time in Sweden. Inasmuch as Dr. Holst has been for a long time an active member of the Swedish Geological Survey, and has visited Greenland and made a study of the glacial conditions in America, and of the Cambrian Glacial epoch in Australia, his opinions are entitled to great weight. Upon this subject we quote from the introductory part of his lecture:

To commence with I want to fix a restriction to the time which is here in question. In a work which I printed three years ago and called *Post-glacial Periods*, I have for the first time here in Sweden given a division based on geological profiles, of the whole time which has expired since the ice age. At that time I came to the conclusion, that the whole post-glacial space of time covered was about 7,000 years. If this figure is approximately correct, as I consider it to be, it implies great progress; inasmuch as other Swedish geologists only a few years previously had marked out 50,000 years as indicating roughly the length of post-glacial time. I based my reckoning with respect to the time, upon remains of the stone age found underneath turf mosses whose growth can be calculated. . . . . Without going into details concerning these calculations it is sufficient to state the results given in my former paper in tabular form:

	years
Time before the immigration of man	1000
The earlier mesolithic stone age	2000
The later neolithic stone age	900
Bronze age	800
Iron age	1400
Historic time	900

During the early stone age he finds no evidence of the existence of flint quarries. The earlier inhabitants of that age evidently lived on the plane of the savage. They did not cultivate the ground nor raise cattle. They had no domestic animal but the

[1] For the translations used in this article the author is indebted to Mr. David Anderson.

dog. They made no pottery, and for tools and weapons used chiefly the horns and bones of animals. The limited amount of flint which they used was made from glacial pebbles scattered over the surface of the country. It is evident that the inhabitants did not resort to quarrying flint until near the end of the Neolithic period, hardly more than 3000 years ago. But the smelting of iron ore appeared very generally at the beginning of the so-called iron age. Heaps of dross connected with the smelting of the ore can be found in nearly all the southern Swedish provinces. The process of smelting was very simple. A small granite oven about 6 ft. high, a pair of bellows worked by the foot, wood in great quantities and very cheap labor were all that was necessary to make very good iron from poor ore. Thus the high reputation of Swedish iron was established very early in history. In the territory which belongs to the so-called iron covered land, including the parishes of Osterfernebo and Hebesunda, almost every estate has its field of dross; while in Westergöttland there are "mighty masses of dross in barren fields," and in border regions Dr. Holst himself has "found numerous heaps of dross, one of which measured 50 ft. in circumference and looked like an ancestral mound. These dross heaps are generally in the vicinity of lakes. Sometimes the ore was a very low grade containing only 20 % of iron, and yet up to the middle of the XV century of our era iron was manufactured in such quantities that the farmers could pay a large tax in iron to the crown.

In the more remote localities of Sweden this manner of forging continued until very late, even down to the year 1840. The legends that pertain to the foremen of the early iron industries are interesting. They are sometimes looked upon as really magicians, and stood before kings, as was the case with Völlund and the dwarfs Regin, Dulin, and Dualin. That the smiths were frequently described as dwarfs probably came from the fact that their greatness did not depend on their bodily strength but on their skill and intelligence. Sometimes the smith was "the foster father and teacher" of the king's son, as was the case with Regin.

This was natural as so much depended on the sword of the smith. If it was very well made it could possess almost supernatural

qualities, and was extremely sought after and admired far and wide and was sometimes the object of fierce strife. But if the sword broke, the same thing happened as took place in the battle of Svoldern when the string broke in the Norwegian sharpshooter's bow and a kingly crown was at stake. Evidently in those days the "smith and his sword played a rôle comparable to that Krupp and his cannon have played in our days. And one can confidently claim that when the Vikings of the north could march through a great part of Europe it was made possible not only by the possession of arms by hardy men trained under hard natural conditions but also from the abundant *good* iron from the mineral tracts of the far north."

All too little is known about the methods of smelting and manufacture of iron in the prehistoric times. The heaps of dross still hide the secrets of the age. But they contain many different things illustrating the skill of the smiths and the market for which they furnished supplies. We find wrought iron, and unwrought iron, tongs, and other iron tools, finished iron, so-called iron globes, lumps of iron ore, all of which yield some desired information. The dross of these heaps is sometimes used for road making and a number of manufactured articles have thus been found in road beds. Dr. Holst has found an axe in one of these heaps of dross, and is anxious to have more care used by the road makers in collecting similar objects.

It is an interesting fact that, though the smelting of iron is so much more simple than that of copper, still the copper and bronze age is thought to have preceded that of iron. But Dr. Holst maintains that the transition between the two ages was by no means so abrupt as the archeologists have often assumed. Even from the latter part of the bronze age iron implements have been known. But as bronze was cast and iron had to be forged, iron was little used before the art of forging was learned. However, a limited use of iron is believed by Dr. Holst to have been made before the copper age.

The bronze of the bronze age consisted of nine-tenths copper and one-tenth tin and is supposed to have been an imported article in Sweden and continued to be used to some extent throughout

the iron age. It is not known that copper ore was smelted in England earlier than the XIII century of our era. There is no doubt that the practical knowledge of smelting copper and making bronze came into Sweden from the older cultural countries of the south. But it is not known how early this art was introduced in Sweden.

Flint quarrying in Sweden is connected with some intensly interesting geological facts relating to the glacial age. A few miles east of Malmö in the vicinity of Pullstorp and the railroad station Cavarnvy there are a number of chalk areas which have been utilized for obtaining writing chalk with good economic results for many years past. The remarkable thing about these chalk deposits is that they are not native but colossal masses or blocks brought inland by the glacial ice which has moved over the bottom of the North Sea and unloaded its burdens in the midst of other glacial deposits, some being underneath upon which they rest and others covering their surface to a depth of several feet.

Rather late in prehistoric time the inhabitants of southern Sweden learned the value of the layers of flint incorporated in these chalk deposits. To obtain the flint thay had first to dig through the glacial blanket which covered the masses to a thickness of from 2 to 6 ft., and then penetrate the chalk an equal or greater distance until the upper layer of flint was reached. The pits which they dug were widened out at the top so as to prevent débris from caving in. The flint, however, was not only obtained from the bottom of the shaft but small vaults were dug around the sides making excavations that were at first thought to be bake ovens. But these pits have been so long abandoned that at the present time they are filled with the débris that has been washed into them. Their re-excavation has brought to light numerous hoes and rakes made from deer horn. Often these showed marks of long use. Sometimes small sockets had been made in the horns and in them chunks of flint fastened so as to increase the size and efficiency of the rake. In these pits, in addition to flint chips, there are found burnt stone and coal from the ancient fireplaces, fragments of earthen vessels, and the bones of domestic animals in great quantities. There is evidence that considerable traffic went

on between the flint diggers and the outside population, the former exchanging their flint implements, which are found widely scattered over southern Sweden, for the animals which they needed for food.

Flint diggers seem to have remained at their mines throughout the whole of the bronze age and far into the iron age. Evidently iron was for a long time so dear that the poorer people could not obtain possession of it, and so continued to use the more primitive material. It has been claimed that even in the time of Julius Caesar about 50 B.C. iron was by weight on a par with gold. Many things indicate, therefore, that bronze and iron were monopolized by the stronger and wealthier classes, while flint was still the main dependence of the poorer and weaker classes. It would, therefore, seem that in Sweden, at any rate, there is no sharp demarkation between the stone and the iron ages; while in view of the recent disappearance of the glacial ice from that country, the archeological remains found there belong to a much later period than that of those which have been found in southern England, central Europe, and the earlier glacial deposits of North America.

G. Frederick Wright.

Oberlin, Ohio.

STANDING STONE IN RUDSTON CHURCH YARD, YORKSHIRE, ENGLAND

STANDING STONES IN YORKSHIRE

YORKSHIRE, the largest county in England, does not contain any of the large stone circles and dolmens which are found in other parts of the country, but it possesses four very fine menhirs or standing stones one of which is the longest stone in Great Britain. It stands in Rudston church yard, at the northeast of the church; 25 ft. of it are above ground and more than 16 ft. below, but how much more is not known; its greatest width and thickness are 6 ft. and $2\frac{1}{2}$ ft. respectively, and it has been dressed to regular shape, its broad sides face east and west by compass, the line of May-day sunrise, or thereabout.

The other three stones are at Boroughbridge, some 15 miles northwest from York and are called the "Devil's Arrows." They stand very nearly in a line, about 20 degrees west of north and

"Devil's Arrows," Boroughbridge, Yorkshire. The Southern Stone Looking Southward

east of south, but a straight line in that direction would have the two end stones touching the east side of it and the middle stone touching the west side of it. The most northerly stone is 18 ft. high, 7½ ft. broad and 3½ ft. thick; 197½ ft. from it is another, 22 ft. high and 4½ ft. broad and thick; and 362 ft. further is the third, 23 ft. high, 4½ ft. broad and 4 ft. thick. A fourth stone, destroyed long ago, stood between the first and second, and close to the latter and Stukeley has stated that a fifth stone, also removed long ago, stood 100 "cubits" further to the south.

These stones are of a soft grit, full of tiny pebbles and have been roughly dressed, like that at Rudston; in addition to this the rain has worn long deep channels on them, narrowing from the top downwards. These channels have been mistaken by at least one antiquary for artificial "flutings," but that they are water-worn

"Devil's Arrows." The Northern Stone Looking Southward to the Middle Stone—The Southern Stone is Partly Hidden by the Tree

"Devil's Arrows." The Middle Stone Looking Northward to the Northern Stone

Rudston Church Yard, Yorkshire, England, Showing the Standing Stone

"Devil's Arrows," Boroughbridge, Yorkshire. The Southern Stone Looking Northward

is shown by their running straight down two slanting sides of a stone which leans, and by their being very long on the uppermost (third) side, and very short on the overhanging (fourth) side of the same stone.

Nothing has been recorded or discovered to fix the age or purpose of these stones, but, as they are all more or less squared and dressed, they are probably of a somewhat later period than most monuments of their class.

A. L. Lewis.

Wallington, Surrey, England.

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THE JEWS IN EGYPT.—A Greek inscription has recently been found of great importance for the history of the Jews in the Delta region of the Nile during Ptolemaic times.

The text is engraved upon a block of marble, and gives 8 lines of complete writing. It came from some ruins contained in a mound near to Alexandria, known as Kom el-Akhdar . . . .

> "In honor of the King Ptolemy and of the Queen Cleopatra, his sister; and of the Queen Cleopatra, his wife, the Jews of Xenephyris (have consecrated) the portal of the Synagogue, the presidents being Theodorus and Achillion."

The most instering information rendered by this inscription is in giving a new site as that of a Hebrew settlement and synagogue, in lower Egypt, at the town of Xenephyris, a place which Stephen of Byzantium tells us was a minor city of Libya, near to Alexandria, meaning probably to the west of that metropolis.

This adds one more to the Israelite communities in Ptolemaic Lower Egypt of which previously only 6 were known. Of these, papyri and inscriptions, in recent years, have revealed to us προσευχαί at Schedia, Athribis, and Arsinoe, in the Fayoum; and of course at Alexandria. Then there was one whose name and site are unknown, to which M. A. Bouché Leclercq, following Herr Strack, says that Euergetes II granted the right of asylum, and finally Oxyrhynchus, which probably possessed a Jewish quarter in pre-Roman times . . . . (*Palestine Exploration Fund*, January, 1914, pp. 45–46).

EMPEROR DAYS ON THE SAALBURG[1]

WHEN the Emperor comes to Homburg, his first visit is to the Saalburg. Already his father, the enthusiastic friend of classic antiquity (only to mention his relations to Ernst Curtius) was with predilection on this historical place, and, in his memory his son has rebuilt the old Roman fortress and on a splendid festival day dedicated it to the memory of Emperor Frederick III, to German youth, to the growing generation, and to the future of our German Fatherland to which it may be destined by the united coöperation of princes and people, of their armies and citizens to become in future times so powerful, so firmly united and decisive, as the Roman Empire once was, that, as the ancient Romans said: *civis Romanus sum*, we Germans can now say: I am a German citizen.

Since these days the Emperor has very often stayed on this Taunus mountain from whence 17 centuries ago many a Roman imperator, surrounded by his watchmen sparkling with weapons, has stood and looked down to the north where the country of the Chattens was spread, from whose impenetrable forests the fair-curled warriors broke forth so often to work destruction and to pillage the fortifications on the mountains of the Taunus and the rich settlements in the productive valleys of the Main.

But the German Emperor never spent such a long time at this much quarreled over fortress on the mountain-pass as in the last weeks in April, 1913. It was a special occasion which caused the Emperor to stay more frequently up here. It was a trial of a peculiar kind: In the east of the Saalburg castle the ditches, ramparts, etc., of two Roman fortifications were discovered which are even older than the Saalburg according to the coins and fragments of pottery found. The northern fortification, provided with a flat ditch and a wooden wall with a bulwark-way, measures 38 by 42 metres, the southern fortification situated higher, con-

[1] Translated from *Die Saalburg. Mitteilungen der Vereinigung der Saalburgfreunde*, January 25, 1914, for RECORDS OF THE PAST by Miss Gertrud Erdt, of Berlin, Germany.

sists of a double pick-ditch and simple mound of earth; between the ditches there is a fortification of fascines and a pale rampart and hurdle-work. It has an extent of 41 by 43 metres. The opinion that the first fortification was founded by that part of the troops who, after the conquest of the German Taunus fortifications, had the order to build on this important mountain-pass a larger castle of earth and wood is probably correct, for it was actually found again as a so-called square castle of earth in the neighborhood, below the present stone castle. But that fortification being founded in an inconvenient place (in rainy weather the rain-water and ground-water ran together here from all sides) it was removed to a higher place; by that manner the second fortification arose which is considered by others a kind of stable for cattle and horses, or as a second place of shelter for a later fortified garrison.

On the foundation of such fortifications we are definitely informed by the ancient military authors—only to mention Polybios and Hyginus.

Now—according to the intentions of the Emperor—the trial should be made to prove with what means and in what time such a march-camp could be built. It was a condition that no other means were to be employed except those instruments which had been at the disposal of the Romans. Only axes, saws and hatchets were seen in the hands of the workmen besides some copies of Roman hedging-bills, hatchets and turf-cutters, the originals of which are to be found in the museums of Mainz, the Saalsburg, etc.

It was fortunate that from the pioneers of Mainz being about 100 men were at his disposal to show their wit and skill. The rather low costs were brought up by private subscription. The question was a military one for the brave pioneers: to unexpectedly solve a technical question, only applying the material which was just at hand.

Then, on Monday, an active warlike life began upon the large glade in the woods near the Roman-German frontier-rampart. The forests re-echoed from the strokes of the axes and pine trees and young beeches fell crashing. Divisions of the troop polished the wood and drew it to the encampment which was marked by plugs by the officers under the command of Captain Stille. Other

divisions were busy driving into the ground the longer and shorter stems; the men stood high upon the self-made "Caesar's jacks" and the heavy beetles fell crashing on the palisades and drove them into the stony ground. Others heated branches stripped of leaves over fire to make them more supple and then with them made the hurdle-work between the stakes so strong and tough that a hostile spear could not penetrate. Thus the rampart arose and upon it, like the castle of the middle ages, consisting also of hurdle work, the battlements arose behind which a man could save himself from the hostile arrows after flinging a dart or a javelin. Meanwhile diligent hands dug out the pick-ditch. The Emperor with the Commander of the Pioneers General Hildemann, is everywhere. Here he asks, there he gives instructions and follows the labor with the greatest interest and with admirable patience (rain and snow flurries alternated with sunshine during all the days and often made the stay very disagreeable); it may now be to bring out a heavy tree-stump or to direct a line of the rampart with the old Roman geometrical instrument or to try practically an old-tree-hatchet. Then a whistle sounds: dinner is ready; meanwhile, below on the transportable kitchen hearth a part of the soldiers has prepared the meal consisting of beef in green cabbages or lentils with pork, almost Roman meals, and now the brave pioneers can take the spoon after five hours' labor. The Emperor himself does not despise a plate of the nourishing broth and permits the officers, whose joy and surprise is great, to partake of the breakfast he brought along with him. The joke: "the request to kindly return the silver knives and forks" is heartily laughed at.

In 20 hours of labor the first rampart is built; the arrangement of the interior, the calculation of the tents and of the garrison gave the surprising result of 120, which number corresponds with a Roman maniple. The second camp was finished in still shorter time because meanwhile the troops had acquired greater adroitness in overcoming many difficulties. Just this putting of theories into practice as they are laid down in the books on these subjects gave an abundance of differences between both, enabled the solving of many a scientific question for dispute and showed how practice can and must help theory.

To discuss such questions the Emperor had invited the chief representatives of our Limes investigation, the Professors von Domaschewski, Fabricius, von Duhn and Dragendorff; the reporter too had been distinguished by an imperial invitation. From the manner in which the Sovereign treated these questions with the greatest profoundness, how he judged and justly discussed the opinion differing from his own, how he proved by numerous details his more than superficial knowledge of the subject, in the seriousness with which he surveyed every progress in the labors and discussed them with professional men, by the charming amiableness with which he met his "Limes"-guests (he invited them to dine with him, showed them the "Erlöserkirche," went with them in his motor cars to the Saalburg, where he remained with them several hours at coffee and beer); all this showed how much the Emperor is fond of the Roman-German investigation, not only, as he expressed energetically to the reporter, because it turns to the Roman but also chiefly to the German history's profit. From this point of view we can comprehend why he ordered the pupils of the neighboring schools to the Saalburg to obtain here by contemplation of the ancient and modern labors fresh impulses for their classic studies and new pleasure in hard work.

Many thousands of people appeared on the beautiful glade in the woods during these days, where the Roman ramparts were being built. Laborious was the work of the pioneers, whose brave Captain Stille, assisted by the lieutenants, from morning until evening instructed the troops who were very proud of giving a proof of their capabilities in the presence of the highest Commander. The chief direction was in the hands of General Hildemann who also lectured to the "Limes"–guests on the probable extent of the garrison, the number of the tents, etc. All the labors were energetically supported by Baurat Jakoby, whose activity too was acknowledged by the Emperor by presenting him with his likeness in a precious frame. General Hildemann received the second class of the Order of the Red Eagle, Captain Stille, Director Blümlein and Director Professor Schoenemann the fourth class of the Order of Red Eagle. The other officers received the fourth class of the Order of the Crown.

Germany. KARL BLÜMLEIN.

CAYUGA INDEMNITY

SINGULARLY omitted from the list of Indian treaties, given in the *Handbook of American Indians*, are the treaties made with the Cayuga nation in New York state. The enumeration of those made in 1789, 1790, 1793, 1795, 1807, 1829, 1831, 1838, 1850 and 1871, shows the length and importance of the Cayuga struggle to retain a hold on field, lake and forest country gained inch by inch during the wars of the two preceding centuries.

Not all in a moment were they driven away. "Forever" is the promise of ownership given the Cayuga concerning a certain hundred square miles along the Cayuga Lake; but this portion of the treaty of 1789 was reduced to merest verbal shading in less than 20 years. Cayuga Ferry was taken from them in 1795, the only reservations left being the one in Springfield and Ledyard, the other in Union Springs. All this territory had been confiscated by May 30, 1807. Even the small surface of Conoga Reserve, a single square mile kept for the home of old "Fish-Carrier," the Hojiagede, "Ojaghetti" or war-chief of 1812 days, was taken away May 25, 1841, by the artifices of state-craft. Long ago the arbitrary and enforced disposition of their lands aroused Cayuga complaint. An early statement of their case is made in New York *Senate Document* 49, for March 1, 1861.

REPORT OF THE COMMITTEE ON INDIAN AFFAIRS, ON THE PETITION OF PETER WILSON, FOR RELIEF

Mr. Montgomery from the Committee on Indian Affairs, to which was referred the petition of Peter Wilson on behalf of the Cayuga nation of Indians praying for the ad ustment of the Claims upon the State, for the profits arising from the sale of their lands,

Reports

That the policy of the State, in relation to the Indian tribes, appears to have been well settled by repeated acts of legislation.

At an early day, the government of the State, actuated, no doubt, by a desire to promote the welfare of the Indians, took measures to encourage their emigration westward, and assured to itself the disposition of their lands. They were not permitted to treat with individuals wishing to purchase portions of their lands, but were persuaded to relinquish their titles to the State itself. The reason assigned for this course was, the protection of the original owners of the soil from the effects of their own improvidence and the rapacity of those who might desire to plunder their fair heritage. The negotiations preceding the foundation of the treaties themselves, fully justify the conclusion that the State virtually assumed the guardianship of the Indian nation within its borders, and thereby made itself, in equity, responsible for the faithful administration of their pecuniary interests.

By the treaty made in 1789, between Governor Clinton and the Chiefs of the Cayuga nation, which was confirmed in the subsequent year by a supplementary treaty between the same parties the Cayuga nation ceded to the State all of their lands, except a tract distinctly bounded, and since that time known as the Cayuga reservation. The amount of land thus acquired by the State, it is exceedingly difficult, if not truly impossible to determine. The boundaries between the several Indian tribes were never clearly marked; but from the location of the several villages of the Cayugas and their known fishing grounds, it would seem that they originally held a tract of country extending from Lake Ontario to the Pennsylvania line, and not less than 20 miles wide. This would comprise an area of about 1700 square miles. The consideration paid the Cayugas for the land thus conveyed, was an annuity of $1,800, which represents, at 6 per cent per annum, the principle of $30,000. A large portion of these lands was disposed of as military bounty lands, and it is believed that the residue was sold at a price so low that little more was realized therefrom than enough to balance the purchase money of the whole tract and the expense of surveying and sale.

In the year 1795 the Cayugas, by treaty and deed, conveyed to the State the lands on their reservation, receiving therefore an

additional annuity of $500. Soon after acquiring the title, the State sold these lands, realizing a large profit from the transaction.

While the State was pursuing this policy, encouraging the Indians to migrate to the then far west, extinguishing their titles to their lands, and thus disposing of those lands for much larger sums than they had cost, the Cayuga, in common with other tribes, experienced all the evils, without any of the benefits, of that civilization before whose majestic stride they were forced to recede.

The Cayugas were scattered; some sought homes among their brethren, the Senecas, in our own State, while others went beyond the Mississippi; their nationality was well-nigh destroyed.

A remnant only of that once powerful tribe now remains. Actuated by a desire to seize any advantages which they have had the sagacity to perceive arise from education, the progress of the mechanic arts and agriculture, of the institutions of civilized life, the few who still survive, have returned from the far west, and gathered together upon the lands of the Senecas, where they are now tenants at will. They have no right on either of the reservations where they now are, and unless some provision be soon made for their permanent domestication among us, it may well be feared that the nation will ere long become extinct.

In 1853, a law was passed by this State designed to facilitate their purchase of homes; but from the want of means, it has resulted to them in no benefit whatever. Should the State now pay them such sum as was realized for the sale of their reservations, they would be enabled to buy land enough for their own use, and make a good beginning in the establishment of schools and such other institutions as their present condition seem to require.

The State has repeatedly recognized the principle upon which the petition before the committee is founded and the Legislature has heretofore appropriated large sums in liquidation of the claims of their Indian tribes, resting upon precisely similar grounds. The case of the Stockbridge Indians, and the Oneidas, might be instanced as affording sufficient precedents for the law now asked. In the report made to this body in 1849, the committee quote with approbation from the petition of the Seneca Indians as follows:

"By the laws of your State, if a guardian speculates out of the estate of his ward, your courts of equity all decree that the money, with interest, be restored to the infant. We were the wards of your noble State, and as such were obliged to sell our lands to our guardian, or move away without a sale. The proceeds arising (not after waiting a long time after lands to rise in market value, but upon immediate sale) amounted to some dollars on the acre, over and above expense of survey and sale, and the question is solely submitted, to whom do these proceeds, in justice and equity, belong?"

The committe are unable to answer this argument. See *Senate Document*, No. 45, 1849. Also *Senate Document*, No. 46, 1849. The reasoning of these reports, although subjected to the severest scrutiny, has never been controverted, and your committee can see no reason why the principles therein embodied, should not be taken as settled policy of the State.

There would remain then only the question, how the State ought to pay to these Indians the amount to which they are justly entitled. And inasmuch as they are now making great exertions to advance themselves in the arts of civilized life, it would seem there should be no hesitation, on the part of the State, to appropriate for their use, to be expanded in the furtherance of this most praiseworthy object: To save from extinction the once powerful nation, would be an act worthy of our State, were there no moral or equitable obligations to pay them, a single dollar; with how much more alacrity, then, should the prayer of the petitioner be granted, when every consideration of justice, equity, and fair dealing unites in its favor?

For these reasons the committee have come to a favorable conclusion and respectfully report the accompanying bill.

CHAS. C. MONTGOMERY,
FRANCIS M. ROTCH,
BERNARD KELLY."

The above concludes the statement of Mr. Montgomery. Many efforts have been made since 1861 and as recently as the present

year, 1913, to obtain some adequate repayment for this dismembered tribe in lieu of lands practically stolen by disregarded treaties. The estimate of Mr. Charles VanVoorhis as to the amount due the Cayuga nation is given in *Red Man,* published by the Carlisle Indian School, in its issue for June, 1912.

There are two questions here involved, according to my own way of thinking: the amount of annuity; and the right of possession.

The latter is not affected by hostility on the part of the nation during the Revolutionary war, for the Indians only knew they were offered the choice of two masters,—British royalist or American colonist. They understood little of the cause for struggle between the two. This was taken into consideration at the time of the treaty of 1789, by which a large tract on Cayuga Lake, the hundred square miles before mentioned, was to remain "forever" theirs, and should today be the seat of Cayuga settlement.

The increase in value of property, formerly included within the boundaries of Cayuga domination, should also be estimated. Their annuity today should not then be 6 per cent of the original valuation, $30,000. It should be 6 per cent of the present value, several millions, making the payment of legal interest somewhere in the neighborhood of several hundred thousand dollars.

This would indeed decide all the issues involved in the "Cayuga question." The scattered remnants of the tribe might then be recalled from Oklahoma, Neosho and Ontario, to gather with them those from the friendly refuge of Seneca territory. The reunited nation of the Cayuga, numbering fewer than 3,000 souls, could then make settlement along the historic shores of Lake Cayuga, in the heart of that country devastated by General Sullivan. Their rich income would enable the Cayuga to satisfy the claim of Canadian brethren for a just share of annuity during the past century, forfeited by the War of 1812 and apparently regranted by the Treaty of Ghent, 1814, but long denied by United States authorities.

The indemnity thus paid, in the newly reckoned Cayuga annuity, would restore honor to the imperial government of a state, whom the misrepresentations of land agents have long led astray.

Either the tract of land and their rights for hunting and fishing should have "forever" remained with the Cayuga, or the entire treaty of 1789 should be annulled, with all other treaties based thereon,—leaving the whole territory as a Cayuga possession.

GRACE ELLIS TAFT.

White Plains, N. Y.

AN ONONDAGA FESTIVAL

DURING his second stay at Onandaga reservation, William D. Manross published a few numbers of a little six-page magazine, called *Te-ho-ti-ka-lon-te*, and in the number for April, 1911, is given the description quoted below:

"On the 10th of January, 1911, the annual pagan festival began with the firing of shot guns at the door of the Council House, on the Onondaga Indian Reservation. Then every half hour throughout the ten days that followed, it was 'Bang!' 'Bang!' During this time the pagan doctrine (incorrectly called the Handsome Lake Doctrine) was being preached. At noon on the tenth day a fire was built in front of the Council House, processions of men and women in and out the various doors of the "Long House" led by medicine men in costume followed, then two sacrifices were burned; one to How-wan-ne-ho, the spirit of good, and the other to Ted-dy-da-ho, the spirit of evil, and the firing of guns. Originally this was probably a human sacrifice; within historic times, up to a few years ago, it was a white dog sacrifice; but the S. P. C. A. put a stop to that; so now it is an offering of two baskets trimmed up with many colored ribbons. There are two causes of the persistence of paganism on this reservation. One is that it has always been the center of the pagan worship of the Iroquois Indians. The leading medicine man (mystery man) of the Onondagas has always been the pagan high priest. The pagan prophets such as Handsome Lake, Corn Planter and others have always

made this Reservation the headquarters for their preaching. The pagan gods How-wan-ne-ho and Ted-dy-da-ho have always been supposed to reside at Tully Lake and Hoppers Glen respectively. And then as paganism died out in the other tribes it has concentrated here, until at this day over half the tribe is pagan, and they control the election of the chiefs and the disposal of the tribal funds. The other reason is because many white people want it so. They keep urging the Indians to keep these dear old customs; to resist education and improvement, and to remain ignorant, superstitious and immoral. . . . . What is there so objectionable in paganism? some one innocently asks. The only real thing in paganism is an overpowering and enslaving superstition. . . . . A bad dream compels a pagan to go right out and put food on the graves of the departed, that their spirits may not come back and trouble the living. When there is sickness in the pagan household, no doctor is allowed: the medicine man (mystery man) is called; he, accompanied by other medicine men, takes charge of the patient. Tom-toms are beaten, incantations are sung, and a dance is kept up for days at a time. If the case is obstinate, then the medicine man decides what the object is that has cast the evil spell on the patient, and it is destroyed. . . . Only the other day the writer met about 30 medicine men going from house to house trying to stay an epidemic of mumps. They were dressed in grotesque rags, and hideous wooden false faces trimmed with horsehair, and each carried a tom-tom, hollow gourd or some other implement of noise. It is needless to say that we have had quite an epidemic of mumps. One house these men visited to cure a little child that was going blind from an obnoxious disease. The child is dead and two other children in the same family are infected. What will occur sometime when a serious epidemic strikes this Reservation? And yet there are people who will still raise the question, Why christianize the Indian?—Why not let the Red Man alone in the simple faith of his fathers?"

GRACE ELLIS TAFT.

New York City.

MAN AND THE MAMMOTH IN AMERICA

THE recent discovery of a well preserved skeleton of *Mammoth americanum* in Farmington, Connecticut, gives new interest to the question of the coexistence of man with the mammoth in America, and to the further question of the dates of the extinction of the mammoth and of the close of the Glacial period. The discovery was made late in August, 1913, by some Italian workmen who were digging a trench on the estate of Mrs. A. A. Pope. The workmen on striking the skull thought at first that it was a tree trunk, and hence injured it somewhat. On discovering their mistake they reported it to Mrs. Pope as a "black devil." Mrs. Pope promptly brought it to the attention of Mr. Charles Schuchert of the Peabody Museum of Yale University, who has given an account of the discovery in the April number of the *American Journal of Science.*

The bones were nearly all together in the place where the animal died, but one of the tusks was 23 feet away and on ground which was 2 ft. higher than the rest of the skeleton. Though the animal was not full grown, the skeleton when mounted will stand about 8 ft. 2 in. at the shoulder, with a length of 13 ft. 2 in. from the tip of the premaxillary bone to the curve of the tail.

Special interest in this discovery is aroused by the evidence it gives of the recent extinction of the mammoth in North America, and of its being a contemporary here with man. Evidently the animal under consideration was entombed shortly after the vanishing of the ice sheet from the highlands of Connecticut. For, the skeleton was found in a shallow trough (or kettle hole) on the surface of the "till," or, direct glacial deposit. As no organic matter or oxidized till was found beneath the skeleton, and as very little vegetal matter is seen in the boulderless clay surrounding the bones, it is evident that the entombment occurred shortly after the ice had withdrawn, and before much vegetation had spread over the glaciated surface. The animal was buried by 4 ft. of clay over which 18 in. of turf had accumulated. Dr. Schuchert estimates that the clay could have accumulated "in a few hun-

dred years, and that the stringy turf apparently did not take much more time to form. Then, too, the skeleton shows no mineralization nor petrifaction and is but little discolored to a light brown by the waters of the swamp."

This evidence of recent burial agrees with that concerning two other specimens found in similar condition in the general vicinity, the skeletons of which "look like bones buried but a few hundred years," while between the ribs of one of these (the Warren skeleton of the American Museum of Natural History) "lay from 4 to 6 bushels of vegetable food, largely coniferous and much like spruce or hemlock." Though this is not direct evidence of man's coexistence in America with the mammoth, the recent date of these entombments would make them contemporary with the various relics of man which have been reported in glacial deposits.

This evidence, added to that which has heretofore been adduced[1] would seem to put the coexistence of man and the mammoth in America beyond question, especially as the elephant mounds in Ohio and Wisconsin, and the prehistoric catlinite pipes shaped like the elephant, found in Iowa, give testimony that is unconnected with any theory of geological agencies.

Thus, all over the northern hemisphere evidence points to the recent close of the glacial period, and in connection with it, or following it, a wholesale destruction of many animal species. In North America the following kinds of great quadrupeds disappeared during that period or shortly afterwards: Camels, llamas, horses, tapirs, mastodons, elephants, and three species of giant sloths, of which the *Megalonyx* is most prominent, the latest discovery of which has recently been made by Mr. Gallup, in Norwalk, Ohio. This like the mammoth in Farmington, occurred in a partially filled "kettle hole," left on the withdrawal of the continental ice sheet.

As these remains are found in post-glacial deposits, it is evident that the advance of the continental ice sheet was not the direct cause of the destruction of these species. But in the words of Professor Osborn, "It is more in accord with the facts to say that

[1] See RECORDS OF THE PAST, vol. ii, pp. 243–253.

the glacial period in North America *originated certain new conditions of life which directly or indirectly resulted in extinction.* These conditions include diminished herds, enforced migrations, the possible overcrowding of certain southerly areas, changed conditions of feeding, disturbances in the period of mating and reproduction, new relations with various enemies, aridity, and deforestation; in short, a host of indirect causes" (*The Age of Mammals*, p. 501).

GEORGE FREDERICK WRIGHT.

Oberlin, Ohio.

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AMERICAN ANTHROPOLOGICAL ASSOCIATION AND AMERICAN FOLK-LORE SOCIETY—JOINT MEETING

THE annual meeting of the American Anthropological Association was held in West Assembly Hall, American Museum of Natural History, New York City, December 29–31, 1913, in affiliation with the American Folk-Lore Society. The joint program was unusually long and more cosmopolitan than at any previous meeting, and the sessions were well attended. The thanks of the members of both Societies are due to the American Museum of Natural History for the ample and attractive facilities provided; to the Explorers Club for the welcome extended to members of the Council; and to Mr. George G. Heye for a private view of the Heye Museum.

At the Cleveland meeting the secretary was instructed to prepare a list of names of persons eminent in anthropology to be submitted with the view of election to honorary membership at the New York meeting of the Association. Pursuant to his instructions the Secretary submitted a list which was referred to a committee named by President Dixon: Boas (Chairman), Hrdlicka, Peabody, and the Secretary, with instructions to rec-

ommend five names. The report of this committee was approved and the following honorary members were elected by the Council: Professor Léonce Manouvrier, Paris, France; Professor Karl von den Steinen, Berlin, Germany; Dr. Alfred P. Maudslay, London, England; His Excellency W. Radloff, Saint Petersburg, Russia; Professor Emile Cartailhac, Toulouse, France.

Dr. Goldenweiser reported for the committee appointed to consider the advisability of devoting one number of the journals (*American Anthropologist* and *Journal of American Folk-Lore*) to recent progress in the field of American Anthropology in connection with the International Congress of Americanists to be held in Washington, D. C., October 5–10, 1914. The report was accepted and Dr. Goldenweiser was instructed to complete his correspondence with contributors and to send the contributions to the editors for publication. The editor of the *Anthropologist* was instructed to have extra copies of the number in question printed for free distribution among the foreign members of the International Congress of Americanists. The contributions already promised are: *Archeology*, W. H. Holmes; *Physical Anthropology*, A. Hrdlicka; *Material Culture*, Clark Wissler; *Mythology*, Franz Boas; *Linguistics*, P. E. Goddard; *Ceremonial Organization*, R. H. Lowie; *Religion*, Paul Radin; *Social and Political Organizations*, A. A. Goldenweiser; *Historical Relations*, J. R. Swanton and R. B. Dixon.

Dr. Hrdlicka gave a detailed report of the progress made by the local committee in preparation for the forthcoming international Congress of Americanists to be held in Washington, D. C. The American Anthropological Association accepted an invitation to become a member of the Congress, to which President Dixon named Franz Boas of Columbia University, and George Grant MacCurdy of Yale University, as delegates from the Association.

A letter was read from Professor A. L. Kroeber, who expressed the hope that the Association would accept the invitation of Mr. James A. Barr, manager of the Bureau of Conventions and Societies of the Panama-Pacific International Exposition, to hold a special session in San Francisco during the Exposition. Professor

Kroeber announced his readiness to do everything in his power to help make such a meeting a success. The invitation was referred to the Executive Committee with power to act.

The selection of a place for the next annual meeting of the Association was likewise left to the Executive Committee, which has decided that the meeting shall be held in Philadelphia during the Christmas holidays, in affiliation with Section H of the American Association for the Advancement of Science.

The Chair appointed a Committee on Nominations consisting of Boas, Lowie, Swanton, Gordon, and MacCurdy, whose report was accepted by the Association, the election of officers resulting as follows: *President*, Roland B. Dixon, Harvard University; *Vice-President 1914*, George A. Dorsey, Field Museum of Natural History; *Vice-President 1915*, Alexander F. Chamberlain, Clark University; *Vice-President 1916*, A. L. Kroeber, University of California; *Vice-President 1917*, George B. Gordon, University of Pennsylvania; *Secretary*, George Grant MacCurdy, Yale University; *Treasurer*, B. T. B. Hyde, New York; *Editor*, F. W. Hodge, Bureau of American Ethnology; *Associate Editors*, John R. Swanton, Robert H. Lowie, and Alexander F. Chamberlain.

The following is a list of the addresses and papers presented:

The Piltdown Skull. Charles H. Hawes, Dartmouth College.

Ten Days with Dr. Henri Martin at La Quina (Charente), France. Charles Peabody, Harvard University.

Paleolithic Art as represented in the American Museum of Natural History, New York. George Grant MacCurdy, Yale University.

The So-Called "Argillites" of the Delaware Valley. N. H. Winchell, University of Minnesota.

Result of an Archeological Survey of the State of New Jersey. Leslie Spier.

The So-Called Red Paint People Cemeteries of Maine. Warren K. Moorehead, Phillips Academy, Department of American Archeology.

Stone Implements of Surgery (?) from San Miguel Island, California. H. Newell Wardle, Academy of Natural Sciences, Philadelphia.

Etruscan Influence in West Africa and Borneo (by title). Earnest Albert Hooten, Harvard University.

Brief Account of Recent Anthropologial Explorations under the Auspices of the Smithsonian Institution and Panama-California Exposition. Ales Hrdlicka, United States National Museum.

Results of Excavations at Machu Picchu. Hiram Bingham, Yale University.

The Human Monster-Figure on the Nazca Pottery. Edward K. Putnam, Davenport Academy of Sciences.

Note on the Archeology of Chiriqui. George Grant MacCurdy, Yale University.

The Maya Zodiac at Acanceh. Stansbury Hagar, Brooklyn Institute of Arts and Sciences.

Chinese Antiquities in the Field Museum. Berthold Laufer, Field Museum of Natural Nistory.

Some Aspects of North American Archeology; Presidential Address, Roland B. Dixon, Harvard University. Followed by a Symposium: The Relation of Archeology to Ethnology. Franz Boas, Columbia University; W. H. Holmes, United States National Museum; Berthold Laufer, Field Museum of Natural History; George Grant MacCurdy, Yale University.

The Horse and the Plains Culture. Clark Wissler, American Museum of Natural History.

a. Wayside Shrines in Northwestern California;

b. Is there Evidence, other than Linguistic, of Relationship between the Northern and Southern Athapascans? P. E. Goddard, American Museum of Natural History.

Phratries, Clans, Moieties. Robert H. Lowie, American Museum of Natural History.

The Social, Political and Religious Organization of the Tewa. H. J. Spinden, American Museum of Natural History.

Tewa Kinship Terms from the Village of Hano, Arizona (by title). Barbara Freire-Marreco.

The Cultural Position of the Plains Ojibway. Alanson Skinner, American Museum of Natural History.

Results of some Recent Investigations Regarding the Southeastern

Tribes of the United States. John R. Swanton, Bureau of American Ethnology.

a. Notes on Algonquian Grammar;

b. Notes on the Social Organization of the Fox Indians. Truman Michelson, Bureau of Ethnology.

My Experience in the South Seas (by title). A. B. Lewis, Field Museum of Natural History.

Field Work Among the Pagan Tribes of the Philippines. Fay Cooper Cole, Field Museum of Natural History.

The Sac-Sac or Human Sacrifice of the Bagobo? Elizabeth H. Metcalf, Worcester, Mass.

The Boomerang in Ancient Babylonia. James B. Nies, Brooklyn, N. Y.

a. The Huron and Wyandot Cosmogonic Dieties, and the Iroquoian Sky Gods;

b. The Wyandot Ukis. C. M. Barbeau, Ottawa.

The Clan and the Maternal Family of the Iroquois League. A. A. Goldenweiser, Columbia University.

Daily Life of the Southern Pai-Utes Forty Years Ago. Frederick S. Dellenbaugh, New York, N. Y.

The Physical Type of the Burusheki of the Northern Himalaya. Roland B. Dixon, Harvard University.

The Eruption and Decay of the Permanent Teeth (by title). Robert B. Bean, Tulane University.

The Piebald Family of White Americans. Albert Ernest Jenks, University of Minnesota.

Condition favoring the Development of Totemic Organization. Franz Boas, Columbia University.

Outline of Morphology and Phonetics of the Keresan Dialect (by title). J. P. Harrington, School of American Archaeology.

The Relation of Winnebago to Plains Culture (by title). Paul Radin.

Types of American Folk Songs; Presidential Address. John A. Lomax, University of Texas.

A Folk Dance from the Charente, France. Charles Peabody, Harvard University.

The Crow Sun Dance. Robert H. Lowie, American Museum of Natural History.

Notes on the Folk-Lore and Mythology of the Fox Indians. Truman Michelson, Bureau of American Ethnology.

Iroquois Totemic Complex. A. A. Goldenweiser, Columbia University.

Home Songs of the Tewa Indians. H. J. Spinden, American Museum of Natural History.

The Ballad in South Carolina. Reed Smith.

Negro Lore in South Carolina:

a. Tales, Sayings, and Superstitions;

b. Songs, A Plantation Dance befo' de War. Henry C. Davis.

The Bridge of Sunbeams. Phillips Barry.

The Japanese New Year. Mock Joya.

a. Siuslauan, a newly Discovered Linguistic Family;

b. An Ethnological Sketch of the Wailatpuan Tribes of Northeastern Oregon (both by title). Leo J. Fractenberg, Bureau of American Ethnology.

Some Aspects of the Folk-lore of the Central Algonkin. Alanson Skinner, American Museum of Natural History.

An Introduction to the Study of Indian Religion (by title). Paul Radin.

GEORGE GRANT MACCURDY.

Yale University.

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BOOK REVIEWS

ATHENS AND ITS MONUMENTS[1]

IN *Athens and its Monuments*, Prof. Charles H. Weller of the University of Iowa has presented the general reader and traveler a concise untechnical account of the "topography and monuments of ancient Athens." He deals with the subject topographically and not in the historical order. A method of treatment which is much preferable for the general reader at least.

After briefly describing the geographical location of Athens and the geological formations which are the base of its topography, Professor Weller devotes an admirable, though of necessity very short, chapter to an historical sketch from the time of the autochthonous Athenian to the founding of the Kingdom of Greece when the Turks withdrew in 1833. Of the former he writes:

> Along with the proud claim that they were autochthonous, the Athenians preserved a distinct tradition of an original race of Pelasgians driven out by later Ionians. The excavations of the last generation have shown that this tradition contains more than a kernel of truth. The Pelasgians are perhaps to be identified with the Mycenaean race, which as we now know, reached a high state of civilization in Greece, as well as the islands and coasts of the eastern Mediterranean, and was displaced before the beginning of the first millennium before Christ by an Achaean people, coming we know not whence. From the Achaeans the Athenians of history were sprung. A considerable admixture of Oriental influence may indicate that the tradition of an Egyptian Cecrops as the city's founder is something besides a myth (p. 29).

The walls and gates are next considered and after them the Hellenic, Hellenistic and Roman Agora. These did not occupy distinct or different areas for the first or "Hellenic Agora was also the Agora throughout the rest of Athenian history." Its size however was increased in later times. References by the ancient Greeks, especially Pausanias, to parts of the Agora and occurrences which took place there have greatly assisted in identifying the ruins in different parts of the Agora. The market place, al-

[1] *Athens and its Monuments.* By Charles Heald Weller, of the University of Iowa. Pp. xxiv, 412, 262 maps and illustrations. $4.00. The Macmillan Company.

though not of as much architectural interest as other parts of Athens has more of the human interest for that was the center of the daily life of the people.

From the Agora the author passes to southeast Athens where the impressive ruins of the Temple of Olympian Zeus still stand, then to the "south slope of the Acropolis" and finally to the Acropolis itself, which as is fitting receives the lion's share of attention.

The last two chapters are devoted to "The Courts and Suburbs" and "Peiraeus and the Ports." There is a short but useful bibliography at the close of the book. The numerous illustrations and maps add to the interest of the book for the general reader and enhance its value to the more serious student.

FREDERICK B. WRIGHT.

THE PAPYRUS OF ANI[2]

AS THE facsimile of this Papyrus, issued in 1890, has been out of print for a good many years it will be welcome news to many to know that Dr. E. A. Wallis Budge has prepared a revised edition of the *Papyrus of Ani*, in three volumes, the last volume being devoted to 37 folded colored facsimile reproductions of the Papyrus with descriptive notes accompanying each plate. This Papyrus was acquired by the Trustees of the British Museum in 1888 and is "the largest, the most perfect, and the best illuminated of all the Papyri containing copies of the Theban recension of the *Book of the Dead*. Its rare Vignettes, Hymns, and Chapters, and its descriptive Rubrics, render it of unique importance for the study of the *Book of the Dead*, and it holds a very high place among the funerary papyri that were written between B.C. 1500 and B.C. 1350. Although it contains less than one-half of the chapters which formed the Great Corpus of texts written for the benefit of the dead, we may conclude that Ani's exalted official position, as chancellor of the ecclesisatical revenues and endowments of all the temples of Thebes and Abydos, will have ensured

[2] *The Papyrus of Ani*. A reproduction in facsimile edited, with hieroglyphic transcript, translation, and introduction. By E. A. Wallis Budge, M.A., Litt. D. In three volumes with reproduction of the Papyrus in 37 folded colored plates (Vol. III). $12.50 net. Postage 50 cts. G. P. Putnam's Sons, New York City, 1913.

the inclusion of all the chapters which an educated Egyptian deemed essential for salvation. The *Papyrus of Ani* is, in short, typical of the *Book of the Dead* in vogue among the Theban nobles of his time."

Volume I contains a general introduction with chapters on the "history of the *Book of the Dead* and on Egyptian religion," which includes the recensions of the *Book of the Dead,* legend of and hymns to Osiris, the doctrine of eternal life, Egyptian ideas of God and the "Gods," the abode of the blessed, the geographical and mythological places mentioned and funeral ceremonies—a remarkable résumé. The latter part of volume I gives a "full description of the *Papyrus of Ani,* plate by plate."

The second volume contains a "complete transcript of the Papyrus in hieroglyphic type, with English translations, notes, etc., and an index." Since 1892 the British Museum has added a considerable number of funerary papyri and from these supplementary chapters have been added. In fact the whole has been revised and brought up to date so that as the author says it is "truly a new edition fully revised to the date of issue."

To the layman, however, the volume of beautiful reproductions in color which comprise the third volume will especially appeal. We are indebted to the British Museum for making possible the reproduction of these plates at such a comparatively low cost.

FREDERICK B. WRIGHT.

KOMPENDIUM DER PALÄSTINISCHEN ALTERUMSKUNDE[3]

DOCTOR PETER THOMSEN in his *Kompendium der Palästinischen Altertumskunde,* gives a brief comprehensive review of the archeological discoveries which have been made in Palestine. He has drawn his information from a wide range of sources and the full notes and references make it specially valuable to any one who wishes to take up the different subjects more in detail. There is a full index and list of biblical references which is very useful. Forty-three illustrations, some of them full page, accompany the text.

[3] *Kompendium der Pälastinischen Altertumskunde.* By Dr. Peter Thomsen. Pp. vii, 109, illustrated. J. C. B. Mohr, Tübingen, 1913. M.4.80.

ARCHEOLOGICAL NOTES

PROFESSOR MACCURDY.—Prof. George Grant MacCurdy of Yale University has been elected a corresponding member of the Numismatic and Antiquarian Society of Philadelphia.

AMERICAN ANTHROPOLOGICAL ASSOCIATION.—Prof. L. Manouvrier, Paris; Prof. Karl von den Steinen, Berlin; Dr. Alfred P. Maudslay London; His Excellency W. Radloff, St. Petersburg; and Prof. Émile Cartailhac, Toulouse (France), have been elected to honorary membership in the American Anthropological Association.

DEATH OF PROFESSOR VAGLIERI.—Prof. Dante Vaglieri, Director of the Ostia excavation, after a short illness died at Ostia on December 14, 1913. Professor Vaglieri was born at Trieste in 1865, and after studying archeology at the University of Vienna, came to Rome in 1886, and began his life work under Professor De Ruggero. He was Director of the Museo delle Terme, and of the Palatine excavations, and reached finally the goal of his aspirations when he was made a director of the Scavi di Ostia. His work there has made of Ostia a second Pompeii. Classical scholars of America join with those of Italy in sorrow for the loss of Dante Vaglieri, the genial Director, the productive scholar, and the scientific archeologist.

MITHRA AND THE BATHS OF CARACALLA.—Additional evidence that the Baths of Caracalla were connected with the worship of Mithra has recently been brought out by Professor Ferri who found a large subterranean gallery, "over half a mile long as well as drains for carrying the water from the Baths." In one of these drains he found fragments of a marble group representing Mithra killing the sacred bull.

MEGALITHIC BUILDINGS IN MALTA AND GOZO.—In Malta and Gozo there are a number of megalithic buildings. The

larger are composed of "oval rooms connected by passages. Round huts were also found." There were 2 dolmens discovered at Malta and 1 at Gozo. From the pottery and other objects found Mr. T. E. Peet concludes that "the affinities of this Maltese material are to be sought in Sicilly, Sardinia and the western Mediterranean, and no doubt, though this we cannot prove, in North Africa. Connection of origin with the pottery of the Aegean there is apparently none."

NEOLITHIC REMAINS AT BEIT TAMIR.—Beit Tamir a hill which overlooks the "Field of the Shepherds" at Bethlehem is the site of a neolithic settlement, and the top of the hill a neolithic place of worship. M. Kellner visited this hill recently and found "2 platform-stones, 1 intact and the other only half preserved. They were both well-covered with cup-marks. Scattered about these neolithic altar-stones on the Beit Tamir hill were found implements ranging from scrapers, chisels, and borers, to ribbon-knives and a small sickle blade."

SURVEY SOUTH OF PALESTINE.—The Palestine Exploration Fund announces that the survey of the "district lying to the south of Palestine is about to be taken in hand." This is a land of great interest and yet but little known although it lies so close to Palestine and Egypt. At present the region has not been surveyed south of Beersheba. This survey will add greatly to our knowledge of those regions referred to in the earlier books of the Bible in connection with Abraham and Isaac, and later in the accounts of the forty years of wandering by the Children of Israel before they were allowed to enter the Promised Land.

DISCOVERIES IN CRETE.—The Italian Archeological Mission has discovered in Crete, at Gortyna a temple to Egyptian divinities, with a dedication on one of the architraves by Flavia Philyra, who erected the building. They also discovered fragments of a colossal statue of a woman and a bust of a woman which is thought to be that of the foundress of the Temple. "On the south of the building was discovered a little flight of steps

leading down to a subterranean pool, where religious ceremonies of purification used to be celebrated; on the side of this staircase are 2 niches for small statues."

TOMBS AT OLBIA, RUSSIA.—"At Olbia were found two tombs closed by rows of amphorae, in one case set upright, in the other reversed; a complete skeleton *in situ*; a child's terra-cotta sarcophagus; and two curiously carved alabaster vases with female figures, perhaps harpies, supporting the bowl-shaped body and other figures standing on the cover, which are of old Ionian style and probably made in Naucratis, as fragments of a similar vase in the British Museum are from there. Among the horse trappings from the tumulus of Ssolocha is a gold fish which apparently stood upright above the forehead and had a religious-symbolic meaning. It explains the use of a similar gold fish from Vettersfelde in the Belin Antiquarium, and it illustrates clearly the technique of such work, the gold being nailed over wooden shapes, parts of which have survived. A large silver vase from Voronezh has three curious reliefs of barbarians in pairs, and like the similar vase found at Kul-Oba (Crimea) is probably of the second century B.C." (*American Journal of Archaeology*, vol. xviii, no. 1, p. 111).

HISTORIC PERSONALITY IN ARCHEOLOGICAL INTEREST.—Interest in archeology is stimulated by attaching to the archeological fact an historic personality. Caesar and Cicero Socrates and Phidias give an interest at once to the Acropolis at Athens, the Temple of Olympia, and the Forum at Rome. Personality quickening the ruins of ancient villas, temples and palaces is but the giving permission to the mind to read itself in the mind of another. But how to make known to the general public the intense interest of the archeological work? I think it can be done by publicity. For what a thaumaturgist is the archeologist! How the dross of ages becomes virgin gold to his magic touch! The wide world is his play-ground. The marble dust of Parnassus turns to living gods and goddesses as his fingers toy with facts. He builds imaginary temples from the ruins of

the past. He peoples his palaces with the risen dead. The continents are his home. Egypt's sands are multitudinous with his friends. He talks jocularly with Cicero. He follows Caesar in his battles; and Cleopatra is his guest. He makes Apollo speak with Phidias. He opens Socrates' prison door. He brings from Cythera her goddess to the gardens of the Louvre. He plays with millenniums, and their trees of frozen stone he makes blossom with golden fruit. Arizona's desert is his happy hunting-ground. His spirit is the eager child's. He stands tip-toe to Nature's lips to catch her whisper of her hidden treasure. And when his work is done he leaves to us, his followers, an elixir of perennial youth (abstract of paper by S. Richard Fuller, *American Journal of Archaeology*, vol. xviii, 1914, no. 1).

PAPYRUS ON THE UPPER NILE.—As experiments are now being made to find a cheap method of using papyrus for paper making it is possible that this plant will again come to something of its ancient importance. Although papyrus was cultivated in Lower Egypt, and according to Theophrastus grew in Syria, and Pliny claims it to have been a native of the Niger and Euphrates, the only place where it is found in abundance now is on the Upper Nile, the plants having disappeared in other localities except where specially cared for as along the Anapo river in Sicily (see illustration RECORDS OF THE PAST, Series 1, vol. vi, p. 285). These and other facts point towards the Upper Nile as the native home of the papyrus. We are indebted to Mrs. Charles N. Dietz, of Omaha, for the accompanying illustration and note on the papyrus which she made while steaming up the Nile in 1913. We quote directly from her *Journal*. "I never imagined there could be so much papyrus in the world as we are seeing from the deck of the little steamer as we go up the Nile in the Soudan country. The height of the papyrus is so great that we cannot look over it except from the upper deck. All we can see even with the field glass is papyrus—miles and miles of it on both sides of the river. It is a great swamp and the amount of water used to make all this growth is enormous and the government is trying different experiments to reclaim this water for use in irrigation through Nubia

and Egypt. The appearance of these huge tracts of papyrus is, to me, very beautiful. The tall green stalks ending in the feathery bushy heads wave in the breeze making me think of the waving plumes of the hearse horses. In some places the papyrus stood fully 25 ft. above the water line but in other places it condescended to come down some 5 ft. or more. This papyrus swamp goes back about 20 miles on one side of the river and 5 miles on the other and is 500 miles long. No wonder the Egyptians used papyrus to write on."

PORTO RICAN ELBOW-STONES.—Dr. J. Walter Fewkes contributed a most interesting article on *Porto Rican Elbow-Stones* to the *American Anthropologist*, vol. xv, no. 3. These elbow-stones, he says "resemble, in general form, fragments of broken collars, but a detailed study of various elbow-stones and comparison with stone collars, rather than bearing out this seeming resemblance, tends to show that they form types distinguished by highly specialized characters." The elbow-stones in the Heye collection are carved in various ways some with heads. Regarding the use of these stones Dr. Fewkes "believes that some collar and elbow-stones were used for similar ceremonial purposes. They are regarded as idols (zemis), and the figures sculptured upon them are supposed to represent spirits (zemis). The arms of elbow-stones are interpreted as extensions by which these idols were attached to a foreign body, and are regarded morphologically as rudiments, survivals of more elaborate objects, possibly the same as the shoulders of stone collars. It is believed that the spirit represented by the faces on the elbow-stones is a bark or tree spirit, and that possibly it is the being that caused the manioc, a plant of importance to the ancient Antilleans, to germinate and increase. This spirit the Antilleans of Porto Rico and Haiti call *Yucayu*."

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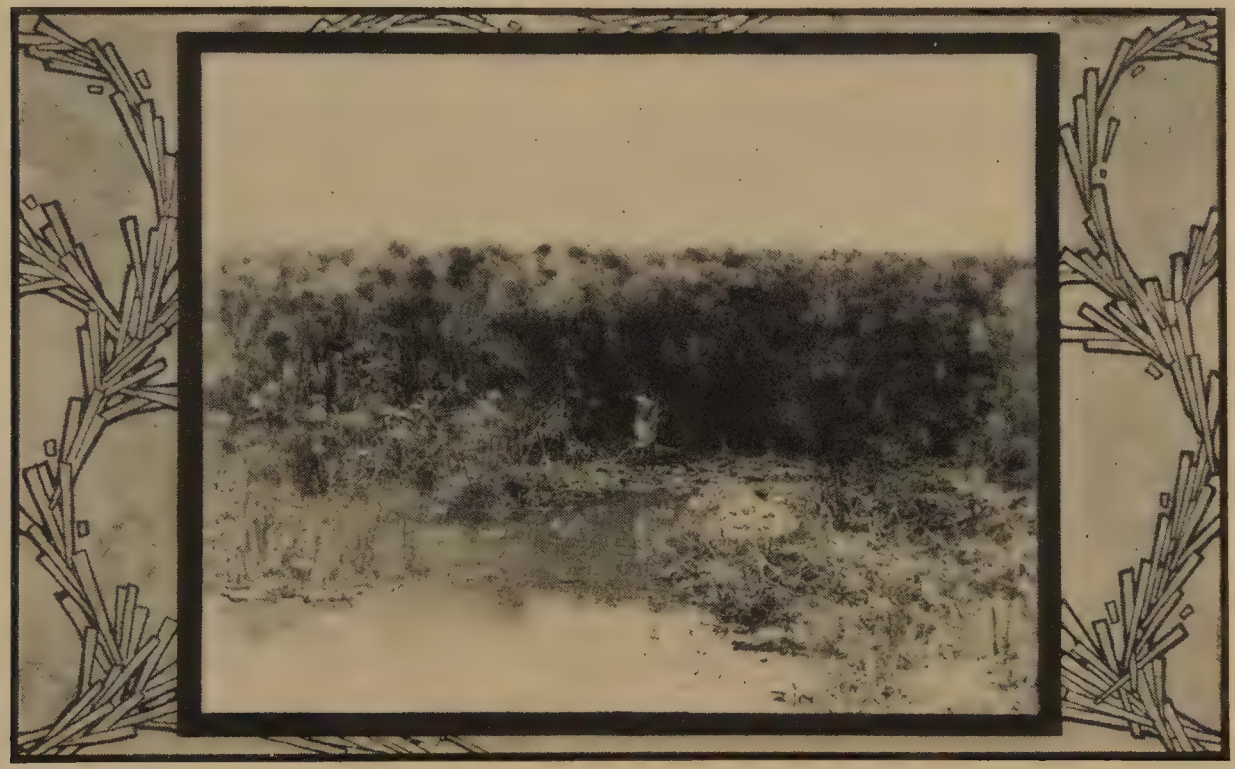

Papyrus Growing Along the Upper Nile
Photo by Charles N. Dietz

CALIFORNIA SHELL MOUNDS.—About 5 miles from Santa Cruz, Calif., and right on the coast is a large shell mound about 270 ft. long by 90 ft. wide. How high it formerly was cannot be told as most of it has been removed by poultry men who used to haul it away by the wagon loads.

This mound seems to have been the kitchen dump of the Indians and a perfect specimen is rare. Arrows and scrapers are the most numerous, most of these being broken, but I once found part of a spear which must originally have been 6 or 7 in. long. I have also found part of a mortar and a broken rubbing stone. The most numerous objects in the mound are stones the size of a peach. These are not worked and seem to be merely water-worn pebbles from the beach; most of them are chipped and broken on one side, and were probably used for crushing shells, as most I have found were lying near a large stone, though there are many scattered through the mound. The shells composing the mound are mostly mussel, though there are many other kinds, and quite a few bones of birds, crabs and seals, which are in a very good state of preservation. Old-timers tell me that the Indians used to come from the hills to this place, gather and cook shell fish and throw the shells on the heap; at this time the mound was about 20 ft. high.

That the Indians also carried mussels back to the hills is proved by the abundance of shells in the ground, and every little cave has its complement, as if they had used them for ovens. Shell fragments in caves seem to have been burned, and the cave walls are discolored by fires.

About 4 miles above this mound are 2 more. One is so old that the shells have mostly decayed; this one is situated on a bluff near the edge of the ocean. The other one seems to be more extensive and was discovered by accident. About 10 years ago they were grading down the road which runs through here and a skeleton was discovered in a shell mound; a little deeper, more were uncovered, about 35 in all. They were badly decayed and many dropped to pieces when exposed. I have a skull in my possession from this group which is in first-class condition; it has a very low, receding forehead and the teeth are much worn. These skeletons seemed to have been buried right in the shell mound, which is now covered by about 2 ft. of soil. The shell layer seemed to spread evenly over a large space and was about 2 ft. deep. I found no stone artifacts and only a few bones of what seemed to be a dog or wolf. The skeletons when found had a few shell beads buried with them but nothing else. [Condensed from an article by R. E. Dodge in the Archæological Bulletin.]